

AGRICULTURAL OUTLOOK

Economic Research Service
United States Department of Agriculture

July 1993

U.S. FARM STRUCTURE

*What the
Numbers
Reflect*

AGRICULTURAL OUTLOOK



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News of Farm Sector Trends, Lower Wheat Prices, Methyl Bromide Ruling, and EC Environmental Policy

Commodity Spotlight

Wheat prices to plummet: USDA estimates that wheat prices for the 1993/94 crop year will drop below \$3 per bushel—for only the fourth time in 14 years. The 1993 crop is expected to be the second largest since 1984. Added to large beginning stocks and increased imports, this will likely swell supply by 3 percent in 1993/94; with total use expected to drop, prices will be pushed down. In addition, less wheat is likely to be exported, and producers will receive lower prices as more wheat is used for domestic feed instead of food.

Agricultural Economy

Farm numbers more stable: The decline in farm numbers has leveled off since the radical changes in the 1950's and 1960's, when the U.S. lost over 100,000 farms annually. The trend toward fewer, larger farms continues, but at a slower pace. USDA's Economic Research Service forecasts that farm numbers will likely decline by an average 15-20,000 per year in the coming decade.

The aggregate statistics camouflage many of the changes taking place in farming and in rural areas. The number of small farms, for example, and the number of farms in the West, have actually grown during the last two decades. Part-time farming has become a permanent and growing part of U.S. agriculture. Off-farm income rather than farming has become the major source of household income for most farm operators.

Food & Marketing

Food prices up slightly: In the first third of 1993, the 1.7-percent increase in the food component of the Consumer Price Index (CPI) was less than half the increase for all other goods and services. The CPI for all food is expected to rise 2-3 percent in 1993, and much of it has already occurred because of weather-related supply disruptions affecting beef and vegetable prices in the first third.



Environment & Resources

Methyl bromide ban: U.S. producers and importers are awaiting final word from EPA on whether the most widely used soil fumigant and quarantine treatment for imports—methyl bromide—will be phased out by the year 2000. USDA estimates that U.S. producers and consumers would lose more than \$1 billion annually if agricultural uses of methyl bromide are banned. Production of some specialty crops could decline and move to other countries, and consumers could face reduced supplies and higher prices for many crops, especially tomatoes, strawberries, and grapes.

Loss of methyl bromide as a soil fumigant would account for about \$800 to \$900 million of the annual economic cost, while loss as a quarantine treatment would incur a cost of about \$460 million. Effective substitutes for use in soil fumigation and import quarantine are not readily available. Irradiation, a potential alternative for quarantine purposes, has not been approved for use in the U.S., and may face problems of consumer acceptance.

EC pollution curbs: Burgeoning efforts in individual EC countries to reduce agricultural chemical use, improve water quality, and meet other environmental goals, will likely be enhanced by reforms of the EC's Common Agricultural Policy (CAP). During the mid-1980's, EC countries started dealing with pollution problems that accompanied intensified farm production. Declining rates of chemical use in recent years reflect the stricter environmental codes, although chemical use per acre in the EC is still generally much higher than in the U.S.

Recent CAP reforms will advance environmental stewardship by partially decoupling production from price and income support, and subsidizing specific environmental protection programs. While current CAP reforms do not set environmental protection as their main goal, many EC countries are adopting environmental protection policies already in place in the U.S., and some that even go beyond U.S. programs.

Food Safety

Salmonella costs: The Economic Research Service estimates that illnesses caused by the two most frequent agents of foodborne disease—*Salmonella* and *Campylobacter*—cost over \$2 billion annually in medical expenses and lost productivity. In the second of a series on food safety, *Agricultural Outlook* focuses on poultry—the major single food associated with illness from *Salmonella*—and on eggs.

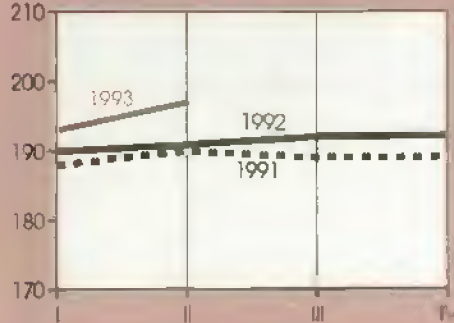
Poultry and egg producers and processors are adopting new techniques to reduce bacterial contamination, and collaborating with government to research new methods of bacterial control. USDA has also undertaken more rigorous food safety and inspection efforts, including mandatory testing of egg-type breeder flocks. The department is currently finalizing a proposal to mandate safety labeling on poultry product packages.

Agricultural Economy

Prime Indicators

Index of prices paid by farmers

1977=100

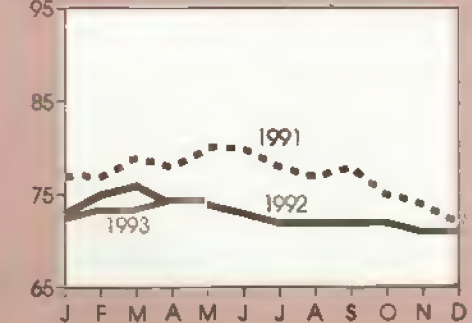
Index of prices received by farmers¹

1977=100

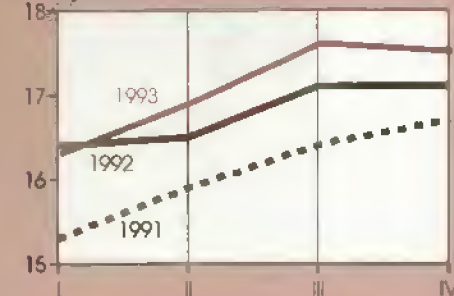


Ratio of prices received/prices paid

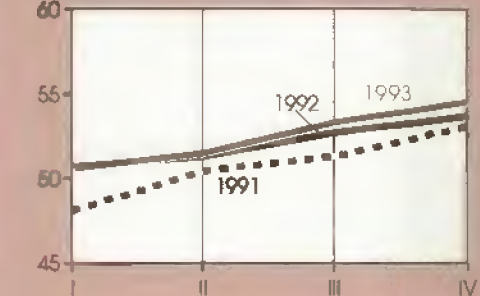
Percent

Total red meat & poultry production²

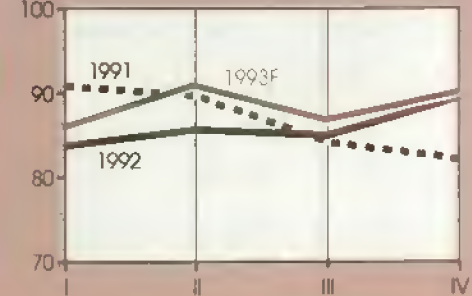
Billion pounds

Red meat & poultry consumption, per capita^{2,3}

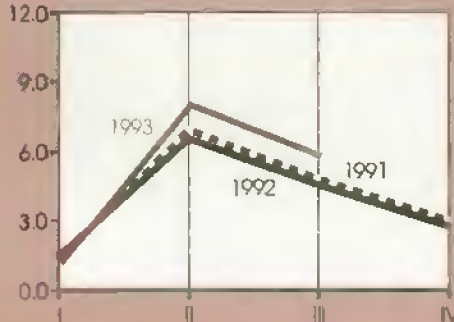
Pounds

Cash receipts from livestock & products⁴

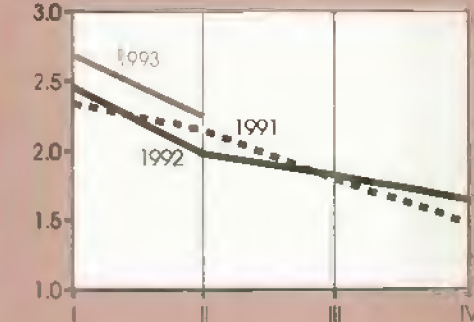
\$ billion

Corn beginning stocks⁵

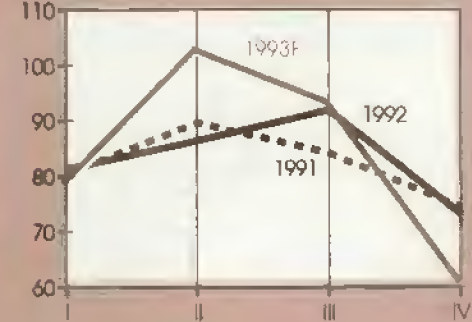
Billion bushels

Corn disappearance⁵

Billion bushels

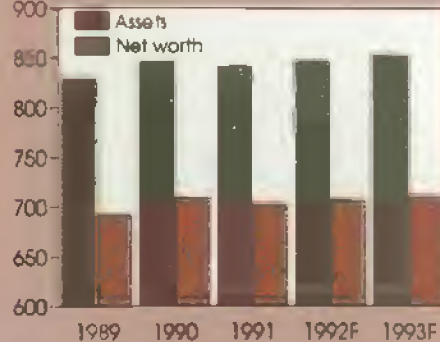
Cash receipts from crops⁴

\$ billion



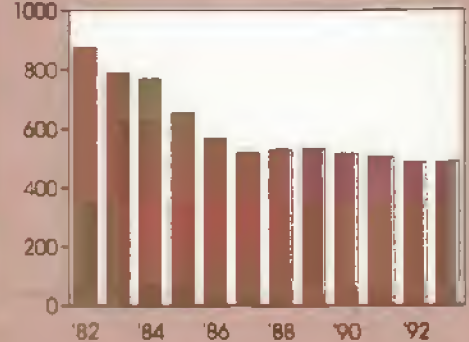
Farm sector net worth

\$ billion



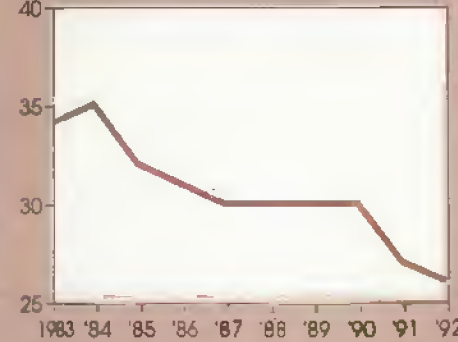
Average real value of farm real estate

1982 \$/acre



Farm value/retail food costs

Percent

¹ For all farm products. ² Calendar quarters. Future quarters are forecasts for livestock, corn, and cash receipts. ³ Retail weight. ⁴ Seasonally adjusted annual rate.⁵ I=Sept.-Nov.; II=Dec.-Feb.; III=Mar.-May.; IV=June-Aug. Marketing years ending with year indicated. F=forecast.



U.S. Farms—Diversity & Change

Several decades have passed since the mid-century migratory flood from America's farms into the cities and urban areas. The rate of farm loss has slowed from over 100,000 per year during the 1950's and 1960's to about 20,000 farms per year during the last two decades, and farm size is increasing at a much slower rate. Last year, USDA statistics showed a net loss of only 9,000 farms from the previous year.

While the rate of farm loss has slowed, the diversity of America's more than 2 million farms and farm operators has widened over the last several decades. USDA is issuing new reports—on aquaculture and industrial crops, for example—to cover new areas of agricultural output. The Census of Agriculture has added questions on female land ownership, herb production, and other new farm characteristics. Part-time farming has become a permanent and growing part of U.S. agriculture, helping to preserve the rural landscape and serving niche markets for specialty and locally grown food.

Concern continues about the loss of farmland and the growing size of today's farms, and about further potential changes. Sentiments favoring family-owned and -operated farms are deeply rooted in U.S. culture and are reflected in some public policy. At least eight states, for example, have passed laws prohibiting corporate ownership of farms.

Part of the concern over U.S. farm structure stems from differing assumptions about what constitutes sound farming practices and whether increased farm concentration leads to monopolized control of food production. Another part of the concern reflects deep misconceptions about the changes taking place in farming and in rural areas.

Myths About Farm Structure

Myth 1: The trend toward fewer, larger farms is escalating.

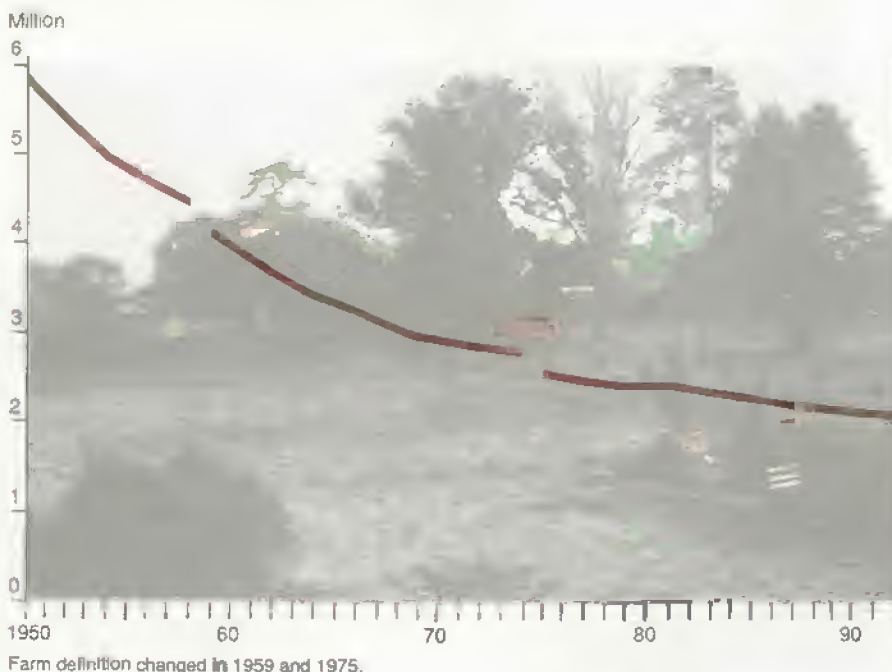
Farm numbers declined rapidly and farm size increased during the two decades from 1954 to 1974. But the structure of farming has stabilized since the mid-

1970's. Between the 1954 and the 1974 Census of Agriculture, the number of farms fell from nearly 4.8 million to 2.3 million, a decline of over 100,000 farms per year, as growth in the U.S. economy was booming. The average farm size nearly doubled to 440 acres, as the productivity of labor and other inputs increased.

Between 1974 and 1987, the number of farms fell from 2.3 million to 2.1 million, and average farm size increased marginally to 462 acres. From 1987 to 1992, USDA estimates show a decrease in farm numbers of about 23,000 per year, and an increase of 17 acres per year in average farm size. The trend toward fewer, larger farms is continuing, but at a much slower pace than in the past.

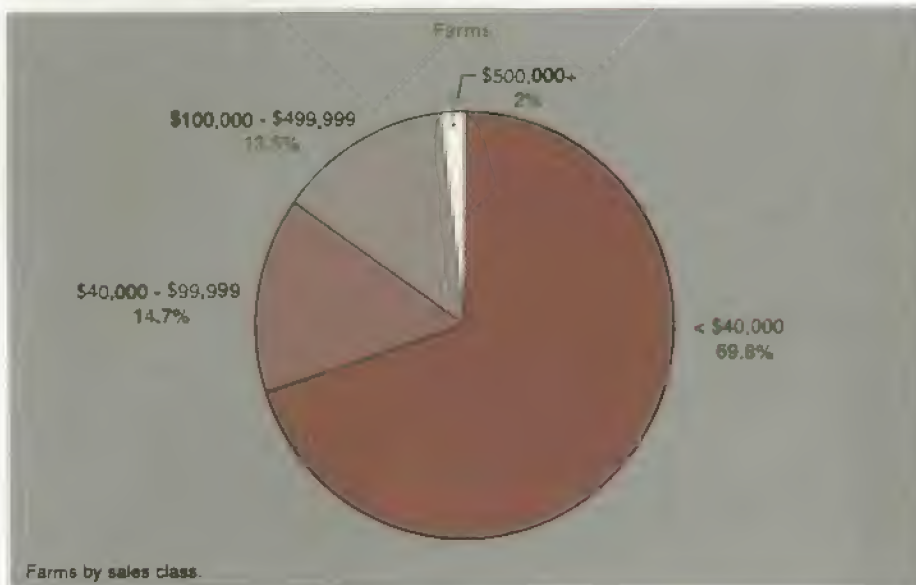
The aggregate statistics camouflage divergent trends among farms of different sizes and different regions. The stabilization of national farm numbers and average farm size was due partly to a surge of small farms (all of which occurred before 1982), that offset the continued consolidation of commercial-size farms into fewer, bigger operations. Between 1974

Decline in Farm Numbers Has Slowed

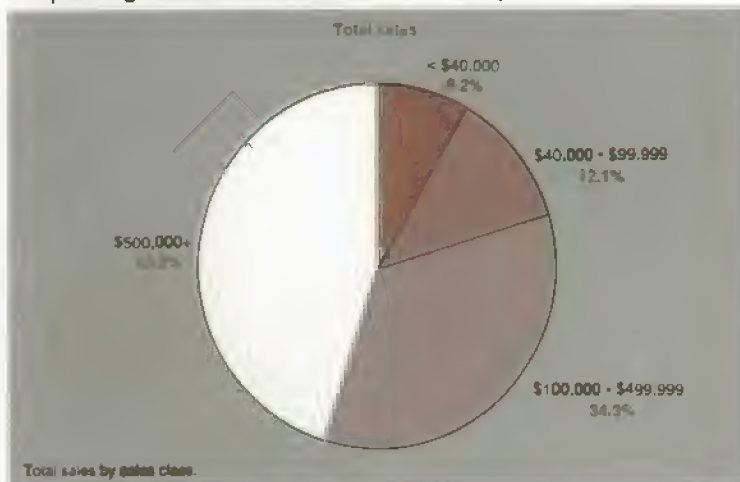


Agricultural Economy

Most Farms Are Small . . .



. . . But Large Farms Account for Most Receipts



Source: 1991 Farm Costs and Returns Survey.

and 1987 the smallest farms, those with less than 50 acres, increased in number by 90,000. Over that period the number of farms with 1,000 or more acres rose about 14,000, while the number with 50 to 999 acres fell by over 300,000. Still, the loss of mid-size farms is much slower than in earlier decades.

While the decline in farm numbers slowed nationally, the patterns in different regions diverge considerably. Farm numbers stabilized in the Northeast and West during the 1970's, but fell steadily in the Plains, Midwest, and South. Between 1987 and 1992, the number of

farms in California, Montana, Wyoming, and some other states—mostly in the West—actually increased.

Myth 2: Corporations have taken over farming.

Only 3 percent of all farms in 1987 were organized as corporations, and most of these were controlled by families. Of the 2.1 million farms in 1987, only 6,000 were controlled by nonfamily corporations, and the number barely changed between 1978 and 1987. Nonfamily corporate farms accounted for 1.3 percent of farmland and 6.1 percent of gross

farm sales in 1987, down slightly from 1.66 percent and 6.5 percent in 1978. Farms are still overwhelmingly controlled by families.

Myth 3: Farm operators rely primarily on their farms to provide income for their families.

The farm is not the primary or only source of income for many farm families. In fact, off-farm income is critical to most farm operator households. The average off-farm income of farm operator households in 1991 was \$32,542, compared with \$3,994 of net income from farming operations. Only about 18 percent of farm operator households received more income from the farm than off the farm in 1991.

Farms have come to depend on the non-farm economy to provide off-farm employment and income for farm family members. Off-farm income is an important source of cash flow for beginning farmers and provides a cushion to offset variations in farm income. Off-farm income also supports the numerous small farms that earn little or no net farm income.

Myth 4: Most farms are similar, resembling the homesteads of the past.

Another misconception is that farms are a unified block of modest-size diversified operations. Today's highly specialized farms produce different commodities in different regions with distinct management objectives. Midwestern cash grain farms, suburban part-time cattle farms, Southern poultry producers, and Western vegetable growers may have little in common, and are in very different subsectors of the agriculture industry. Each subsector has its own trends—farms may be faring well in some industries and struggling in others—and each is affected differently by government farm policy.

Farms have also become highly specialized and tightly integrated into the mainstream economy. Many farms, while maintaining family control over their operations, have become closely linked with downstream agribusinesses. The poultry subsector, especially, has become

put supply, production, and marketing are closely coordinated. A typical poultry operation may be more like a manufacturing company than a farm.

Producer-processor contracting relationships have become more common as commercial farm operations became larger and fewer in number, and as processors have heightened their concern for maintaining quality and standardization of the farm products they use. More input suppliers are also developing contracts with farms.

In addition to the steady structural change, the increasing diversity of the farm sector means that descriptions of the "average farm" have less meaning than in the past.

Myth 5: Farming is the primary rural enterprise.

USDA's Economic Research Service (ERS) classifies only about one-quarter of U.S. counties as agribusiness counties—where farming and farm industries employ a third or more of the labor force. Farming, farm input, and processing and marketing activities employed a third or more of the labor force in 1986 in 800 counties (785 nonmetropolitan counties and 15 metropolitan). In only about half (434) of these agribusiness counties, farming alone accounted for one-third or more of total county employment.

Most of the counties where farming alone was important are in the large-scale farming and ranching areas of the Great Plains, Corn Belt, and Mountain states. In the agribusiness counties in Appalachia, the Southeast, and the Delta region, processing and marketing industries played a more significant role in the farm economy. For most rural areas, non-farm manufacturing and service industries are the mainstay of the local economy. Employment in farming and related businesses is declining even in communities where farming is the principal economic activity.

Myth 6: Farming takes place only in rural areas.

Many farms are now located near urban or urban-fringe areas. Much of the nation's fruit and vegetable production, for example, takes place in the city's shadow, especially in California. According to Census of Agriculture data, nearly 30 percent of farms were in metropolitan areas in 1982, and an additional 32 percent of farms were in counties adjacent to metropolitan areas.

Changes Will Be Slow

Some observers have predicted dramatic changes in farm structure in coming years. For example, the increasing average age of farmers has led some to conclude that radical changes will occur when aging farmers begin to retire en masse with few younger farmers to replace them. Other commentators paint a scenario where a few large farms—forming an oligopoly—force out competitors and achieve a degree of market power that allows them to set high food prices.

Actually, structural change in farming is likely to be ponderously slow. After the radical changes of the 1950's and 1960's, the farm sector seems to have settled down. Based on the current age structure of farmers and recent rates of farm entry and exit, ERS estimates that more than 500,000 farmers will retire over the next 10 years, and will be replaced by about 350,000 younger entrants.

Farm numbers will likely decline by only 15 to 20,000 per year in the next decade compared with the rate of over 100,000 per year several decades ago. States west of the Mississippi River will experience little change in farm numbers. Southern and Northeastern states will lose farms the fastest—1-2 percent per year—as these regions have the greatest imbalance between older and younger farmers. Farm consolidation will continue at a moderate rate in the Corn Belt and Lake States regions, as farm numbers decline less than 1 percent per year.

Read More About It

The research results on the changes taking place in farming and rural areas cited in this article are discussed in detail in the following reports by USDA's Economic Research Service:

- *The Changing Concentration of U.S. Agricultural Production During the 20th Century: 14th Annual Report to the Congress on the Status of the Family Farm*, ERS Report No. AIB-671, July 1993 (\$9 per copy).
- *Structural Change in the U.S. Farm Sector, 1974-87: 13th Annual Family Farm Report to Congress*, ERS Report No. AIB-647, May 1992 (\$8 per copy).
- *Characteristics of Large-Scale Farms, 1987*, ERS Report No. AIB-668, April 1993 (\$9 per copy).
- *The Economic Well-Being of Farm Operator Households, 1988-90*, ERS Report No. AER-666, February 1993 (\$9 per copy).
- *Agriculture-Related Employment: Farm Commodity Programs and Rural Economies*, ERS Report No. AIB-613, September 1990 (\$4 per copy).
- *Metropolitan Growth and Agriculture: Farming in the City's Shadow*, ERS Report No. AER-619, September 1989 (\$5.50 per copy).

Call 1-800-999-6779 to order these reports.

Agricultural Economy

tage of the most efficient production technologies and management practices, keeping food and fiber prices low.

It is highly improbable that oligopolistically organized farms will be able to raise consumer food prices, as some observers have suggested. Even such powerful cartels as OPEC, consisting of a few suppliers, have proven unstable. It is unlikely that farms numbering in the hundreds or thousands would be able to exert market power to raise prices. Despite increasing capital requirements, it is relatively easy to enter many farm commodity sectors. Attempts by some producers to raise prices could attract additional entrants and drive prices back down.

Increasing integration of farms and food processors can ensure greater control over food quality and safety for consumers. For example, potato processors often specify by contract the quality standards growers must meet, and tomato processors are increasingly specifying the use of chemical-reducing pest control methods.

Increasing vertical integration could have mixed effects on producers. Farmers who produce under contract often benefit from reduced risk of fluctuating prices. Contract arrangements could also reduce barriers to farm entry for persons with low equity, although in exchange, they give up some of their independence and take on other risks related to contract renewal and negotiation.

The coming decade will see a slow evolution toward fewer, larger commercial farms with closer ties to downstream agribusinesses operating in a changing economic environment. Today's dynamic world markets, the growth of niche markets, concern for food quality, and increasingly stringent and complex environmental regulations require a sophisticated food and fiber sector that can quickly transmit market information and ensure use of efficient production and management techniques.

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AO

Field Crops Overview

In the U.S., production of wheat and cotton is forecast up for 1993, while corn, soybean, and rice output is expected down. Ending stocks of cotton and wheat in 1993/94 are projected up 21 percent and 32 percent from the forecast carryin level. However, ending stocks of soybeans and rice in 1993/94 are projected down from 1992/93 levels, and are expected to be unchanged for corn.

In the world market, U.S. 1993/94 exports of wheat, coarse grains, and soybeans are expected to decline from the 1992/93 levels. U.S. wheat exports fell because wheat supplies are large and competition intense in a flat market. Coarse grain import demand is off sharply. Improved 1992/93 soybean production in Brazil is expected to generate greater competition for U.S. exports.

Domestic Outlook—June Projections For 1993/94

Near-Record Yields Expected for Wheat

The U.S. wheat crop in 1993 is expected to be the second largest since 1984, fueled by an abundant winter wheat output. With this large crop on the horizon, and use in 1993/94 expected down slightly, projected ending stocks are up markedly.

- Harvest of the winter wheat crop is well underway, and production is expected up almost 14 percent from last year.
- Total wheat production is projected at 2.5 billion bushels, up 3 percent from 1992. Harvested area is expected up by 3 percent, although the projected average yield, at 39.1 bushels per acre, is down slightly.

- Total use is projected at 2.4 billion bushels, down 3 percent from last year, as lower exports offset an expected rise in domestic use.
- Projected ending stocks, at 660 million bushels, are up 32 percent from the forecast carryin level, prompting a decline in U.S. farm prices. The season-average price in 1993/94 is expected in the range of \$2.55-\$2.95 per bushel, compared with \$3.25 estimated for 1992/93.

Conditions for winter and spring wheat, as of June 20, were reported to be quite good, and a high percentage of these crops were rated as good or excellent. Overall wheat yields are expected to be third highest on record, led by winter wheat yields, which are forecast to be second highest on record.

- The average winter wheat yield, based on June 1 conditions, is forecast at 41.2 bushels per acre, up 0.4 bushel from the May 1 forecast. This yield would be second only to the record-high 41.8 bushels realized in 1983. Seventy percent of the crop was rated good or excellent as of June 20, compared with 36 percent last year.
- Spring wheat conditions are also favorable. As of June 20, 84 percent of the spring wheat crop was rated good or excellent, compared with last year's 55 percent. Twenty-two percent of South Dakota's crop rated excellent.

Looking ahead on the program side, USDA announced a zero-percent Acreage Reduction Program (ARP) for 1994 wheat on May 28, unchanged from 1993. The 1994 winter wheat crop will be planted this fall and largely harvested in June and July, while the spring crop will be planted in April and May of 1994 and harvested in late summer.

Corn Prices Expected Near 1992/93 Average

Corn production in 1993 is projected to be smaller than last year due to a return to trend yield and a higher ARP, which has reduced planted area. With total use forecast up slightly, and total supplies up by nearly the same amount, ending stocks are virtually unchanged from expected 1993/94 carryin. Prices are also expected near this year's level.

- Corn production in 1993, projected at 8.5 billion bushels, is down 10 percent from last year's record.

Based on March planting intentions and a historical harvested-to-planted relationship, harvested area is projected down 2.8 million acres. The projected yield, based on 1960-92 trend, is down nearly 9 bushels from last year's record.

- Total use is projected slightly higher in 1993/94, at 8.5 billion bushels. Food, seed, and industrial use is expected up, largely due to greater use of ethanol in gasoline blends. Feed and residual use is also expected higher. However, lower world coarse grain demand, especially in southern Africa, is dampening the export outlook.

- Ending stocks in 1993/94 are projected to be virtually unchanged from the previous year, at 2.1 billion bushels. The season-average price is forecast in the range of \$1.85-\$2.25 per bushel in 1993/94, near this year's \$2-\$2.10.

While wet fields delayed corn planting early in the season, crop conditions as of late June were generally fair to good. Crop ratings tended to be relatively high in the eastern Corn Belt and the central and southern Plains as of June 20. But states where late plantings occurred—such as Minnesota and Wisconsin—were not doing as well. In Minnesota, 27 percent of the crop rated poor or very poor—and only 15 percent rated good or excellent.

U.S. Field Crops—Market Outlook at a Glance

	Area		Yield	Output	Total supply	Domestic use	Exports	Ending stocks	Farm price
	Planted	Harvested							
	— Mil. acres —	Bu./acre							
Wheat									
1992/93	72.3	62.4	39.4	2,459	3,003	1,148	1,355	499	3.25
1993/94	72.3	64.5	39.1	2,524	3,099	1,214	1,225	660	2.55-2.95
Corn									
1992/93	79.3	72.1	131.4	9,479	10,583	6,745	1,725	2,113	2.00-2.10
1993/94	76.5	69.3	122.7	8,500	10,618	6,950	1,550	2,118	1.85-2.25
Sorghum									
1992/93	13.3	12.2	72.8	884	937	483	275	180	1.80-1.90
1993/94	11.2	10.0	66.0	660	840	433	275	132	1.70-2.20
Barley									
1992/93	7.8	7.3	62.4	456	597	360	80	157	2.03
1993/94	7.7	7.1	57.0	405	582	355	80	147	1.85-2.25
Oats									
1992/93	8.0	4.5	65.6	295	472	355	6	111	1.33
1993/94	8.1	4.4	55.5	245	421	310	5	106	1.15-1.55
Soybeans									
1992/93	59.3	58.4	37.5	2,197	2,477	1,392	775	310	5.50
1993/94	59.3	58.2	35.1	2,045	2,358	1,383	710	265	5.35-6.35
	Lb./acre		— — — — — Mil. cwt (rough equiv.) — — — — —					\$/cwt	
Rice									
1992/93	3.17	3.13	5,722	179.1	212.4	97.5	78.0	38.9	5.80-6.00
1993/94	3.13	3.06	5,655	173.0	218.4	100.5	80.0	37.9	4.50-6.00
	Lb./acre		— — — — — Mil. bales — — — — —					¢/lb	
Cotton									
1992/93	13.2	11.1	699	16.2	19.9	9.9	5.4	4.7	\$4.60*
1993/94	13.4	12.4	680	17.5	22.2	10.3	6.3	5.7	**

Based on June 10, 1993 World Agricultural Supply and Demand Estimates; U.S. marketing years for exports.

*Weighted-average price for August 1-April 1; not a season average.

**USDA is prohibited from publishing cotton price projections.

See table 17 for complete definition of terms.

Tighter Soybean Stocks Expected

Soybean production in 1993 is forecast well below last year's large output, and supplies are projected down. Total use is also forecast down in 1993/94, but supplies are down further, resulting in lower ending stocks and a potentially higher season-average price.

- Soybean production in 1993 is forecast to be 2 billion bushels, down 7 percent from last year. Supplies are projected down nearly 5 percent.
- While harvested area is expected down marginally, average yield (based on 1972-92 regional trends) is forecast at 35.1 bushels per acre, down 7 percent from the 1992 record.
- Total use, at 2.1 billion bushels, is expected down more than 3 percent in 1993/94, due mainly to an 8-percent decline in exports. Crush is projected up slightly as modest growth in domestic meal use offsets lower meal exports.

Agricultural Economy

U.S. Field Crop Progress

In the spring, damp, cool weather delayed field work and crop development across much of the country. Precipitation between March and May reached 150-200 percent of normal in many areas stretching from southeastern Wisconsin to the Panhandle of Texas. While above-normal rains were common in the mid-section of the country, below-normal rainfall in the eastern Corn Belt and parts of the Southeast caused planting progress to generally run ahead of normal.

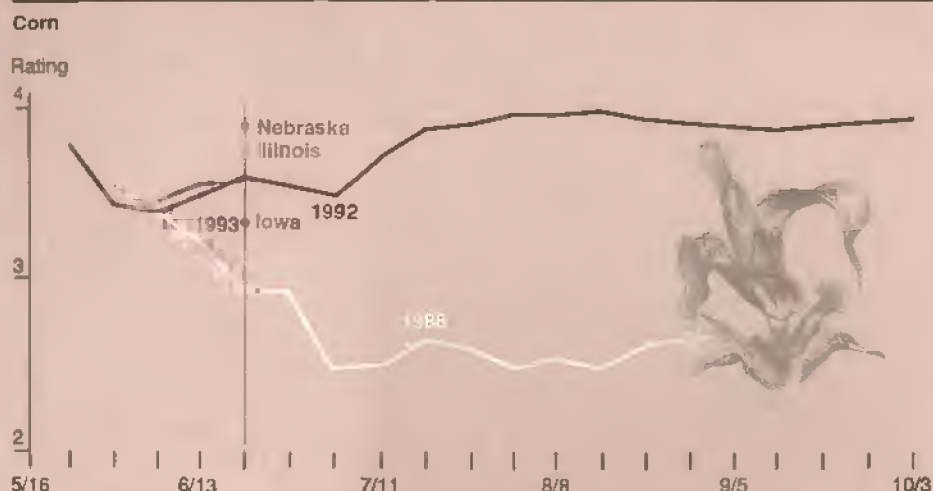
Despite the slow start in planting crops, especially corn and soybeans, drier conditions the last 1 1/2 weeks of May allowed many farmers to complete much of their planting by the end of the month. But cool, damp conditions since then have slowed crop development, and in Iowa and Minnesota, have caused reports of yellow or stunted corn. And, persistent rains in June continued to delay planting efforts for many producers in the western Corn Belt.

Despite adverse conditions in several states, overall conditions are good, with 57 percent of the corn crop rated good or excellent as of June 20. Eight of the 17 reporting states indicated that at least 70 percent of their crops rated good or excellent as of that date.

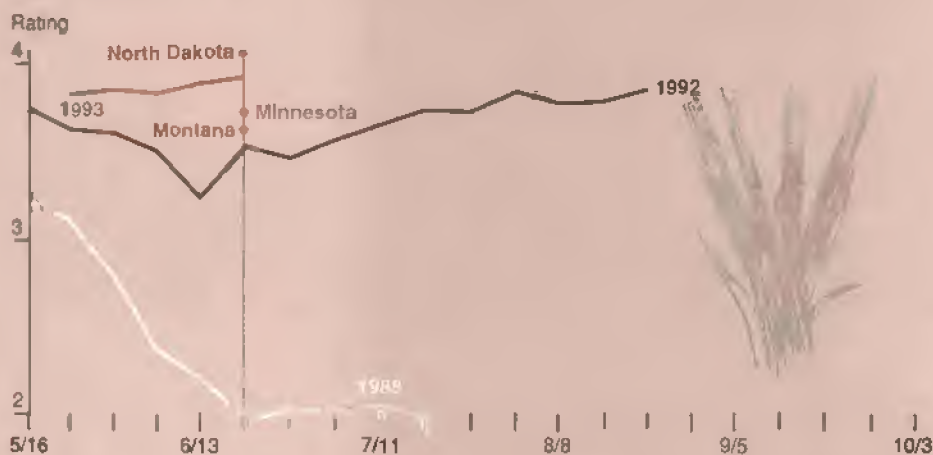
Although cotton planting started the month of June slightly ahead of schedule, cool weather slowed crop development in many areas. Even so, the cotton crop rated 3.52 nationally, in the fair-to-good range as of June 20, the highest ranking on that date since 1990. Conditions improved between the end of May and mid-June as warmer, drier conditions favored crop development.

For spring wheat, cool weather slowed development in many areas of the Northern Plains as of early June. Despite the slow start, the crop is in generally quite good condition nationally, with an average crop rating for all reporting states of 3.95 on June 20. Crop development generally improved during June as temperatures moved closer to seasonal levels. As of June 20, 84 percent of the crop rated good or excellent. In North and South Dakota, at least 90 percent of the crop rated good or excellent.

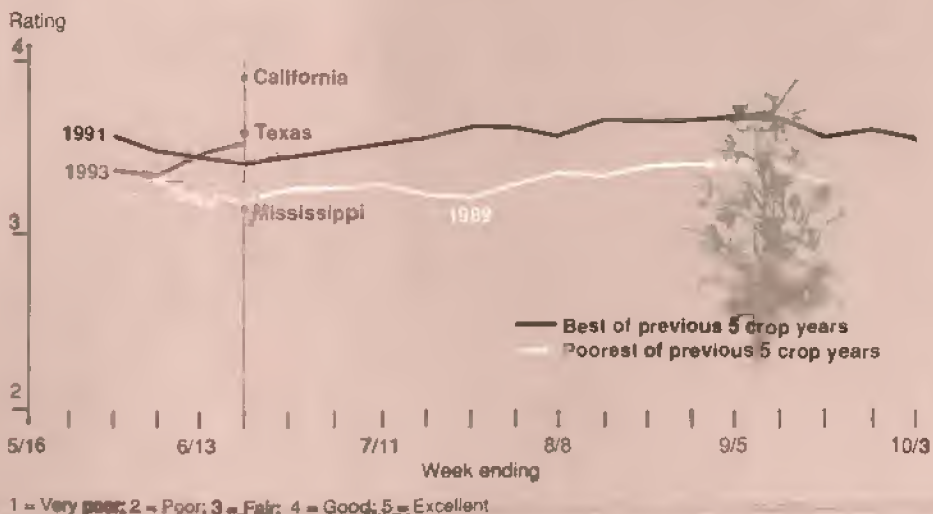
Condition of Spring Wheat Crop Is Best in 5 Years



Spring Wheat



Cotton



Agricultural Economy

- Lower ending stocks projected down by 15 percent are expected to help maintain prices in 1993/94. Prices for the season are expected in the range of \$5.35-\$6.35 per bushel, compared with this year's \$5.50.

Wet weather also delayed planting of the 1993 soybean crop, and planting progress was well behind the average. Variable weather conditions across much of the country continued to cause delays as of mid- to-late June. Even so, crops that had emerged were generally rated good to fair.

- Only 83 percent of the crop had been planted as of June 20, compared with a 5-year average of 89 percent. Planting was furthest behind in the western Corn Belt and parts of the Great Plains. As of June 20, 80 percent of the Iowa crop had been planted, compared with the 98-percent average. And in South Dakota, planting was 33 points behind normal.
- Crops that had emerged as of June 20 were in generally good shape, particularly in the eastern Corn Belt and several southern and Plains states. Seventy-five percent of the Illinois crop rated good or excellent with high ratings also reported in Indiana and Ohio.

Rice Supply & Use To Be Record High

Record rice supplies and disappearance are expected in 1993/94. With the increase in use expected to be greater than the rise in supplies, ending stocks in 1993/94 are forecast down slightly. However, even with tighter ending stocks, low world prices are expected to dampen the U.S. price outlook. The season-average price is expected near the low levels of the early 1970's.

- Rice production in 1993, at 173 million cwt, is forecast down from last season, due to a higher ARP and a

return to a trend yield. Even so, supplies are expected up 3 percent, due to large carryin stocks.

- Total rice use is expected up 4 percent in 1993/94, with increases projected for both domestic use and exports.
- With total use up by more than supplies, ending stocks are expected down nearly 3 percent. The season-average price is forecast in the range of \$4.50-\$6 per cwt, down from the \$5.80-\$6 expected for this year.

Emergence of the 1993 rice crop was almost complete by late June. Overall, 98 percent of the crop was in the fair-to-good range. The California and Texas crops were in the best shape, with 85 percent and 86 percent rated good or excellent.

Cotton Stocks Projected Up

U.S. cotton output in 1993 is expected up sharply from last season—due partly to the lower ARP—and supplies are expected to reach the highest level since 1966. With supplies outweighing the projected increase in total use, ending stocks for 1993/94 are expected up sharply.

- Cotton production in 1993, projected at 17.5 million bales, is up nearly 8 percent from 1992/93, and supplies are forecast up 11 percent.
- Domestic use and exports in 1993/94 are both expected above the current year's levels. The 1993/94 export forecast was revised upward by 5 percentage points in June, reflecting record new-crop sales and relatively large unshipped 1992-crop sales.
- The increase in use forecast for 1993/94 is not enough to offset the rise in supplies. Ending stocks are

forecast up 21 percent—the second-highest since 1987/88—and the stocks-to-use ratio is expected to reach 34 percent.

Cool, wet conditions hindered planting in the Mississippi Delta in May, but planting was ahead of schedule in most states by early June, and was virtually complete by late June. Ninety-three percent of the crop rated in the fair-to-good range. But in Georgia, Louisiana, and Missouri, 8 percent or more of the crop was rated poor or very poor.

[Joy Harwood (202) 219-0840]

Global Market: Outlook for 1993/94

U.S. Wheat Exports Expected To Drop

U.S. 1993/94 wheat exports are projected to drop, as world trade remains nearly flat and exports from competing countries increase. Improved quality in this year's crop in Canada and Australia as well as more aggressive export of large 1992/93 stocks of lower quality wheat are anticipated. Also, large carryin stocks will allow EC exports to equal 1992/93 levels, despite lower production.

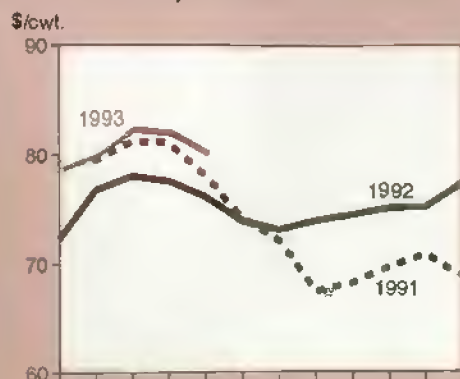
Private EC stock holders, selling into intervention stocks, boosted stocks to record levels. Global production of wheat is projected down, with the sharpest declines in the former Soviet Union and China.

- The U.S. is anticipated to export 33 million tons, down 11 percent from estimated 1992/93.
- EC exports are projected at 22 million, equal to 1992/93.
- Global trade is projected about the same as last year, while production falls 2 percent.

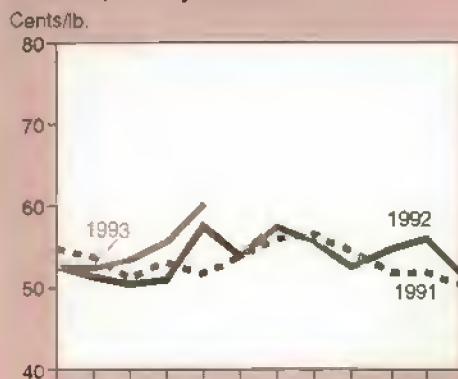
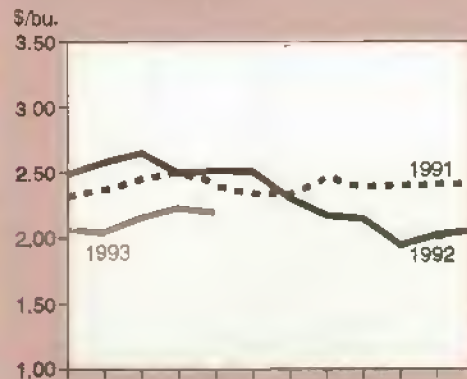
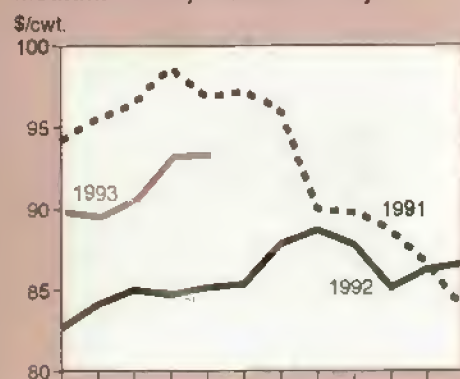
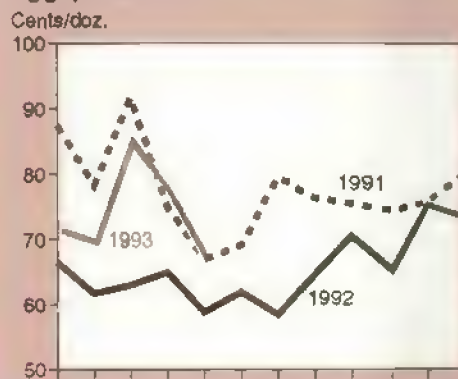
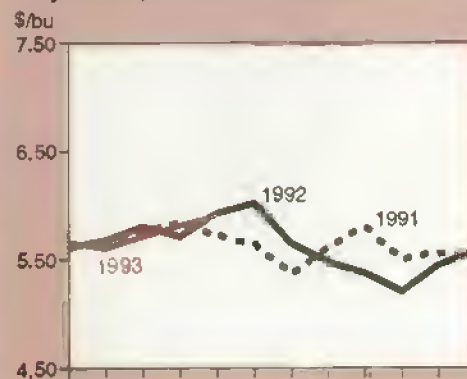
Agricultural Economy

Commodity Market Prices

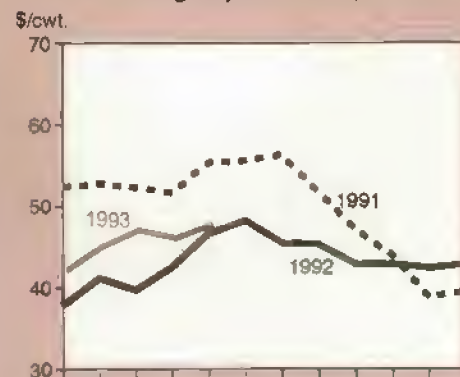
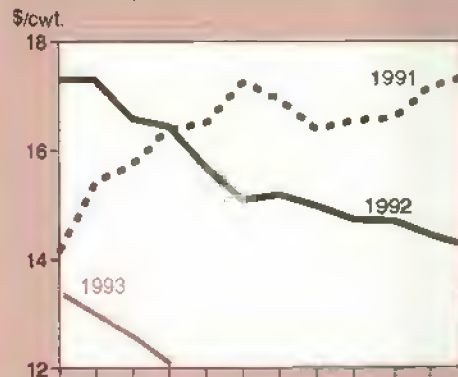
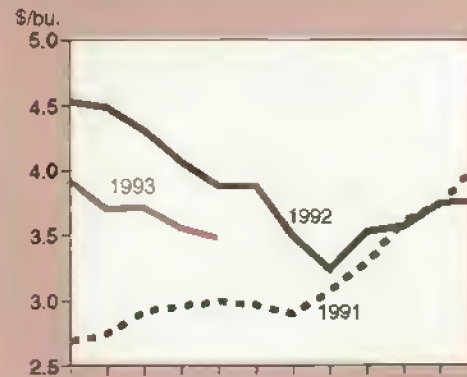
Choice steers, Nebraska



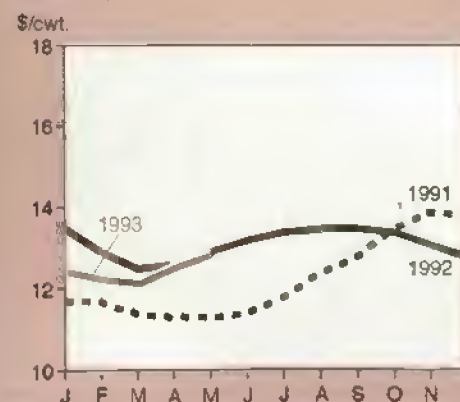
Broilers, 12-city average

Corn, Central Illinois¹Medium steers, Oklahoma City²Eggs, New York³Soybeans, Central Illinois⁴

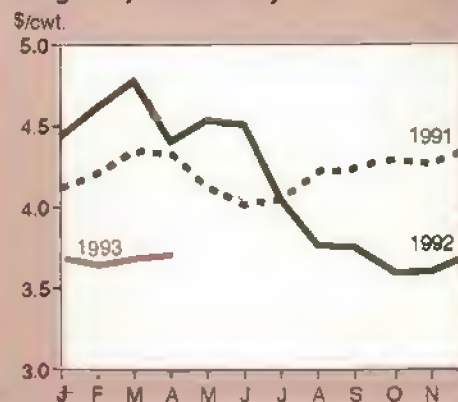
Barrows and gilts, 6 markets, Omaha

Milled rice, SW Louisiana⁵Wheat, Kansas City⁶

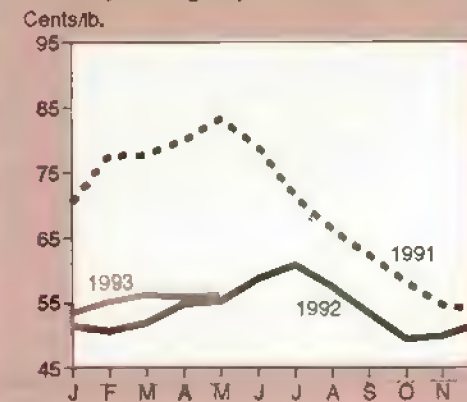
All Milk



Sorghum, Kansas City



Cotton, average spot market



¹No. 2 yellow. ²600-700 lbs. medium no 2. ³Grade A large. ⁴No. 1 yellow. ⁵U.S. No.2 long-grain. ⁶No. 1 HRW.

World Wheat Output Down, Trade Steady

	Year ¹	Production	Exports ²	Consumption ³	Carryover
<i>Million tons</i>					
Wheat	1992/93	558.0	100.1	551.6	134.8
	1993/94	546.6	100.7	553.9	127.5
Corn	1992/93	526.6	62.1	503.5	101.3
	1993/94	502.6	56.2	512.1	91.8
Barley	1992/93	164.8	16.0	164.6	30.7
	1993/94	162.1	16.2	165.2	27.5
Rice	1992/93	351.0	14.3	354.0	53.4
	1993/94	347.5	NA	354.0	46.9
Oilseeds	1992/93	227.7	38.7	185.6	22.6
	1993/94	228.3	NA	NA	NA
Soybeans	1992/93	117.1	31.5	96.4	20.0
	1993/94	NA	NA	NA	NA
Soybean meal	1992/93	76.3	28.4	75.5	3.3
	1993/94	NA	NA	NA	NA
Soybean oil	1992/93	17.2	4.3	17.2	1.9
	1993/94	NA	NA	NA	NA
<i>Million bales</i>					
Cotton ⁴	1992/93	82.2	25.8	85.1	38.3
	1993/94	87.5	27.0	87.0	38.6

¹ Marketing years are: wheat, July-June; coarse grains and corn, October-September; oilseeds, soybeans, meal, and oil, local marketing years except Brazil and Argentina adjusted to October-September; cotton, August-July. ² Rice trade is for the second calendar year. ³ Crush only for soybeans and oilseeds. ⁴ Cotton exports are revised to include trade among the 12 countries of the former Soviet Union and the three Baltic states.
NA = Not available.

Coarse Grain Import Demand To Shrink

U.S. coarse grain exports are expected to fall sharply in 1993/94 as global import demand drops. But exports from competing countries are also expected to fall, and U.S. market share is expected to slip only slightly. Higher production in a number of countries—including Canada and most of southern Africa—is expected to reduce import demand for corn.

- Projected U.S. exports of 48.3 million tons are down 9 percent from the forecast 1992/93 level.
- U.S. market share is forecast to drop from 59 percent in 1992/93 to 57 percent in 1993/94.

Soybean Export Competition Stronger

The forecast for Brazil's 1992/93 soybean crop rose again in June, and 1992/93 South American production is set at record levels. Increased South American supplies are expected to generate greater competition for U.S. exports at the start of the 1993/94 U.S. marketing year.

The EC, the major oilseeds importer, recently approved the EC-U.S. oilseeds agreement signed last November. This agreement is effective in 1994/95.

- U.S. 1993/94 soybean export projections were reduced 280,000 tons in June to 19.32 million, compared with 21.09 million for 1992/93.

- Projected U.S. soybean meal exports remain at 5.8 million tons.

Cotton Exports Expected Up

U.S. 1993/94 cotton exports are projected to exceed 1992/93, as global consumption and trade expand. But with larger foreign output, foreign exports also are projected up. Greater demand among cotton importers remains contingent upon stronger economic growth in major textile importing countries, such as the EC.

- Projected 1993/94 U.S. cotton exports are 6.3 million bales, compared with 5.35 million for 1992/93.
- Foreign exports are projected up 1.5 percent.

[Carol Whitton (202) 219-0824]

For further information, contact: Sara Schwartz, world wheat; Randy Schnepf, world rice; Edward Allen, domestic wheat; Janet Llivezey, domestic rice; Pete Riley, world feed grains; Tom Tice and Jim Cole, domestic feed grains; Nancy Morgan and Jaime Castaneda, world oilseeds; Scott Sanford and George Douvelis, domestic oilseeds; Ken Bowman, world cotton; Bob Skinner and Les Meyer, domestic cotton. World information (202) 219-0820; domestic (202) 219-0840. **AC**

Agricultural Economy

Livestock, Dairy & Poultry Overview

Beef production is poised to pick up in the second half of 1993 following poor feeding conditions and low feed conversion rates in the winter and spring quarters, which reduced slaughter weights. Overall, 1993 beef production is expected to be down fractionally from a year ago, and domestic beef consumption is expected to decline.

Pork production for 1993 is projected to be up slightly. Hog prices have bounced back from lows reached in early May, and pork imports are expected to increase.

Economic conditions in the poultry industry are generally favorable in 1993. Stable-to-higher product prices, coupled with lower feed costs, are resulting in positive net returns, encouraging continued growth in output. Relatively stable

retail prices for broilers in 1993 compare favorably with increased beef prices. Per capita broiler consumption will be up in 1993.

Beef Output To Gain In Third Quarter

Large cattle-on-feed inventories and seasonal weight gains will lead to increased beef production in the second half of 1993. First-half production was off, as inclement winter weather and muddy feedlots through spring hampered rates of gain and slaughter weights. During the spring quarter, many feedlots marketed steers and heifers before they reached optimal weight and grade. Still, the number of cattle on feed on June 1 was expected to be 7 percent above 1992's level.

Weakness in prices this summer because of rising slaughter levels will subside later this fall as slaughter inventories decline seasonally. Higher cow slaughter will continue for the remainder of 1993, adding to processing beef supplies and offsetting a slight decline in imports.

- Third-quarter beef production is forecast to increase 7 percent over the spring quarter and 1 percent above a year earlier. Output is expected to decline seasonally in the fourth quarter, but will likely remain 2-3 percent above a year earlier.
- Fed cattle prices traded in the upper \$70's per cwt during early June, but are expected to decline to the low- to mid-\$70's by August. Fall prices are expected to range in the mid-\$70's.
- Retail prices for choice beef, which had been at record highs in the spring, will likely head lower in June and should range near \$2.90 per pound by late in the summer quarter—about 7 cents above a year ago. Prices for 1993 will generally exceed those of 1992.
- Voluntary Restraint Agreements with Australia and New Zealand will limit 1993 beef imports, which will be down 3-4 percent from last year.

U.S. Livestock and Poultry Products—Market Outlook at a Glance

		Beginning stocks	Production	Imports	Total supply	Exports	Ending stocks	Consumption		Primary market price
								Total	Per capita	
		— Million lbs. —						— Lbs. —		\$/cwt
Beef	1992	419	23,086	2,440	25,945	1,324	360	24,261	66.5	75.36
	1993F	360	23,026	2,335	25,721	1,300	350	24,071	65.3	75-79
Pork	1992	388	17,234	645	18,267	407	385	17,475	53.1	43.03
	1993F	385	17,381	675	18,441	425	375	17,641	53.0	43-47
¢/lb										
Broilers	1992	36	20,907	0	20,943	1,489	33	19,421	66.8	52.6
	1993F	33	21,862	0	21,915	1,610	33	20,272	69.0	52-56
Turkeys	1992	264	4,778	0	5,042	171	272	4,599	18.0	60.2
	1993F	272	4,847	0	5,119	187	260	4,672	18.1	58-62
		— Million doz. —						No.		¢/doz.
Eggs*	1992	13.0	5,882.7	4.3	5,899.9	157.0	13.5	5,002.8	235.1	65.4
	1993F	13.5	5,913.5	4.0	5,931.0	158.0	12.0	5,008.7	232.9	73-77

Based on June 10, 1993 World Agricultural Supply and Demand Estimates.

* Total consumption does not include eggs used for hatching.

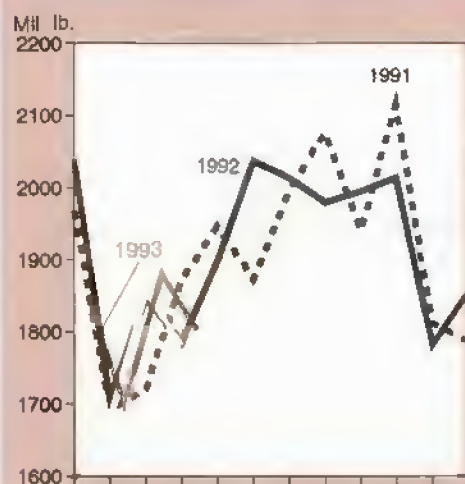
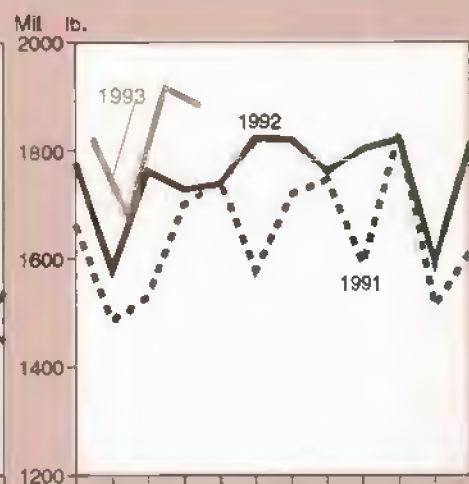
F = Forecast

See tables 10 and 11 for complete definition of terms.

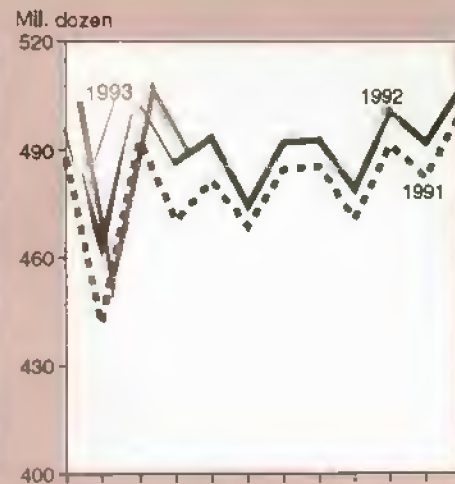
Livestock & Product Output

Agricultural Economy

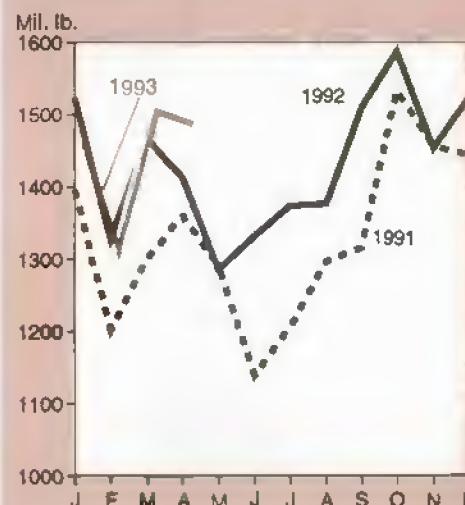
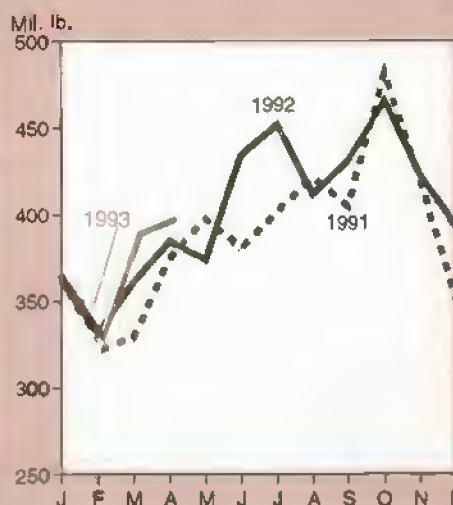
Commercial beef

Broilers¹

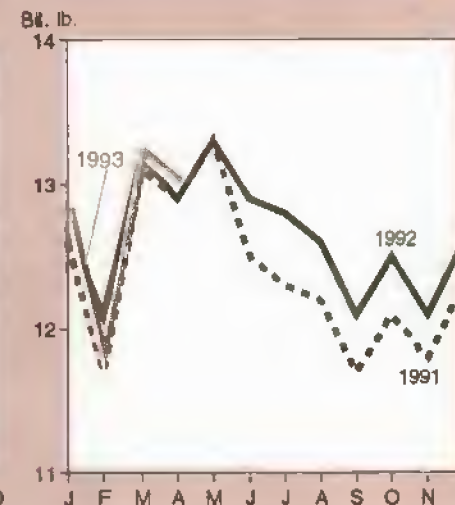
Eggs



Commercial pork

Turkeys¹

Milk



¹Federally inspected production, ready-to-cook.

Pork Prices Rise, Imports Up

Pork production for 1993 is projected to be up slightly, but fluctuations in slaughter rates make production projections uncertain. Hog prices have rallied since early May and are expected to remain relatively steady until seasonal increases in slaughter rates occur late in the summer. Retail pork prices are expected to move up during the second half.

Imports of pork products from Denmark and the Netherlands are likely to increase in 1993 because of high U.S. prices and low European Community prices. First-quarter exports dropped as sales to Mexico fell substantially, but U.S. pork exports for 1993 are expected to be above last year.

- Hog slaughter in May averaged 1 percent above a year earlier, with most of the increase in the first half of the month.
- Average dressed weights were about a pound higher than a year ago due to heavier barrows and gilts.

- Barrow and gilt prices, in the mid-\$40's per cwt in early May, rose to the high \$40's by the end of the month and are expected to remain at that level until late summer.
- Retail pork prices, which in April were at their lowest level since late 1989, rose in May and are expected to continue rising in the coming months. For the year, pork prices will average about the same as last year.
- Imports of pork products rose sharply in the first quarter, and are expected to reach 675 million pounds for 1993, 5 percent above

Agricultural Economy

1992. First-quarter pork exports declined 8 percent from a year earlier, and annual exports for 1993 are expected to increase only about 4 percent.

Broiler Returns Improve

Favorable returns, the best since 1990, are encouraging broiler production increases. Net returns are fueled by low feed costs, record exports, and strong domestic demand. Increased supplies appear to have little impact on prices, and seasonal demand strength associated with summer picnics and barbecues will provide added support to prices in the third quarter. Favorable returns to broiler producers are expected to continue through the end of the year, though they will moderate as prices ease late in the third and during the fourth quarter.

- Second-quarter net returns were much improved over a year ago, aided by feed costs about 8 percent below a year earlier. On a whole-bird basis, average net returns for the first half of 1993 were about double those of a year earlier.
- Second-quarter production was 5 percent above a year earlier, reflecting heavier slaughter weights and increased chick placements. The number of broiler chicks placed in May and June averaged about 5 percent above a year earlier, indicating that third-quarter production will be up substantially.
- Broiler exports for 1993 are expected to exceed 1.6 billion pounds, 8 percent over last year.
- Wholesale prices for whole broilers are estimated in the mid-50-cents-per-pound range in the second quarter, compared with 52.3 cents a year earlier. Third-quarter prices are also expected in the mid-50-cent range.

- Retail prices are expected to remain stable for the rest of the year, averaging 87-88 cents per pound, slightly above last year. Prices compare favorably with increased beef prices, accounting in part for the expected 3.3-percent growth in per capita broiler consumption in 1993.

Turkey Prices Up Only Slightly

Despite brisk export growth that is supporting dark turkey meat prices, overall turkey price increases are expected to be small in 1993 as turkey products face strong competition, especially from pork. Producer returns are expected to improve but average only slightly above costs. With flat production, increased exports, and slightly increased domestic sales in the first quarter, turkey stocks dropped below last year's levels.

- Placements of poults for third-quarter slaughter are about the same as last year, but heavier weights are expected to push production up about 2 percent.
- Wholesale hen prices were 59 cents per pound in the second quarter, slightly below last year, and are expected to improve seasonally in the third quarter.
- Tom prices, benefiting from increased processing demand for breast meat, were 63 cents per pound in the second quarter, up 2 cents from last year, and are expected at 65-67 cents in the third quarter.
- Retail turkey prices are expected to average about 99 cents per pound (whole bird) in 1993, compared with 97 cents in 1992.

- With third-quarter feed costs expected at 6-7 percent below last year, returns will likely move slightly above breakeven.
- Turkey stocks on May 1 totaled 422 million pounds, 2 percent below last year. Whole-bird stocks, at 283 million pounds, were down 4 percent.

Egg Output Steady, Prices Sharply Higher

Total egg production for 1993 is expected to be up only slightly from last year. The size of the laying flock, particularly the table-egg flock, has increased gradually while hen productivity has declined. Lower per capita egg supplies are boosting prices sharply. The strong prices and lower feed costs are raising returns in 1993.

- Total egg production is expected to increase about 1 percent in the second half of 1993 over the same period in 1992, with little change in table-egg production and a 4-percent increase in hatching-egg production.
- The annual average New York wholesale egg price is expected to reach 73-77 cents per dozen, 10 cents above last year.
- Third-quarter retail prices are expected to be in the mid-90's, compared with 84 cents per dozen a year ago. The annual average retail price is projected at 91-93 cents per dozen, 7 percent higher than last year.
- Net returns will average near 10 cents per dozen for 1993, compared with only 2 cents a year earlier.

Egg Product Use Picks Up

While per capita consumption of shell eggs has declined steadily over the past 10 years, consumption of processed egg products has grown. Processed egg product use is *expected* to increase in 1993 to the equivalent of 56 eggs per capita, 24 percent of total egg consumption.

Egg products are the result of further processing shell eggs. Breaker plants prepare pasteurized liquid, frozen, and dried egg products from shell eggs. The pasteurization of processed egg products reduces bacterial contamination, making them popular for institutional use.

The products can contain yolk, egg white, whole egg, and additional ingredients. Egg products are used by hotels, restaurants, and other institutions as raw materials in food preparation, in order to simplify preparation and storage operations. Among the products that speed meal preparation are omelet mixes, pourable quiche mixes, and scrambled egg mixes in pouches ready to be dropped into steam kettles. Egg products can be stored frozen.

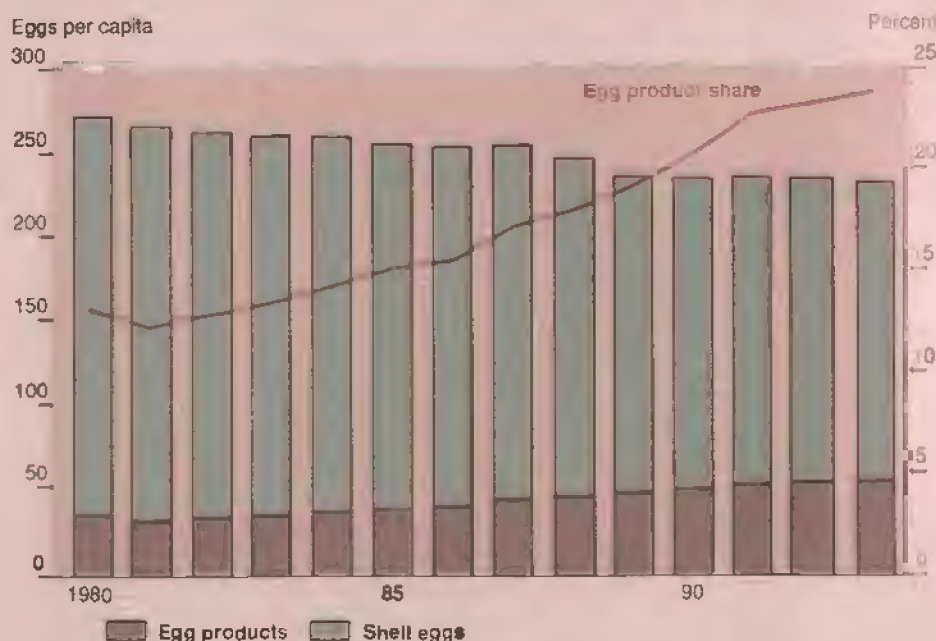
Food manufacturers also use egg products—often those that come blended with sugar, salt, dried milk, or other ingredients. Egg products can be purchased by the tanker-truck load, in 2-20 pound containers of liquid, 30-pound containers of frozen eggs, or barrels or bags of dried egg mix. Food products using egg mixes include pasta, cakes, cookies, meringues, frostings, and ice cream. Eggs are also used in non-food manufacturing of shampoo, pharmaceuticals, and leather tanning.

Egg products are also available in grocery stores. Examples of retail egg products are french toast sticks and extended shelf-life egg mixes that are fat-free, cholesterol-free, and low in sodium.

The convenience of egg products often comes with a higher cost. A packet of scrambled egg mix retails for between \$1.50 and \$1.80 for 8 ounces, the equivalent of 8-9 eggs, while shell eggs will retail between 90 and 95 cents per dozen this year.

[Milton Madison (202) 219-1285]

Egg Product Use Increases Despite Decline In Total Egg Consumption



Egg product consumption in shell-egg equivalent. 1993 forecast.

Agricultural Economy

Dairy Product Use Shifts

While commercial use of dairy products aggregated on a skim solids basis fell 3 percent in early 1993, commercial use aggregated on a milkfat basis jumped 3 percent. Most of the shift in use can be attributed to major changes in the prices of nonfat dry milk and butter, and may indicate a move from nonfat dry milk use by food processors. Declines in sales of fluid milk and cottage cheese also contributed to the weakness in skim solids use. In contrast, butter sales continued to rise as economic growth triggered a slight recovery in the away-from-home and industrial markets, to join continued rises in retail sales.

- Nonfat dry milk prices have risen 40 cents per pound over the past 5 years, while butter prices have fallen about 55 cents.
- January-April commercial disappearance of nonfat dry milk fell 40 percent to its lowest level in 5 years.
- January-April commercial use of butter jumped 14 percent to its highest level since 1975.
- For all of 1993, milkfat basis sales are projected to grow 2 percent, while skim solids sales will be unchanged from a year earlier.

For further information, contact: Richard Stillman and Agnes Perez, coordinators; Steve Reed, cattle; Leland Southard, hogs; Lee Christensen, Larry Witucki, and Milton Madison, poultry; Jim Miller and Sara Short, dairy. All are at (202) 219-1285. **AO**

Specialty Crops Overview

Excessive spring rains reduced bloom on summer fruit and disrupted supplies of fresh vegetables from California. Output of fresh-market peaches, nectarines, plums, sweet cherries, and apricots in California is expected to be down in 1993. Because of the smaller crops, prices are likely to be higher than last season for most summer fruits. However, a large freestone peach crop may moderate fresh peach prices this summer. Winter rains have aided the recovery of Florida's tropical fruit acreage, though acreage is at a 20-year low following orchard destruction by Hurricane Andrew in August 1992.

Prices of fresh vegetables, volatile in March and April, are expected to stabilize through mid-summer. Summer onion plantings, delayed by rains, are forecast to reach a record high in 1993.

Summer Fruit Output Down

First forecasts for California fruits indicate smaller crops for fresh-market peaches, nectarines, plums, sweet cherries, and apricots in 1993. Dried plum production also is expected lower. Excessive rains during the spring bloom reduced production potential. Forecasts for most summer fruits in states other than California become available on July 12.

- California's fresh freestone peach production is forecast 2 percent lower than in 1992. However, larger crops in South Carolina and Georgia are expected to boost U.S. freestone output to 1.7 billion pounds, up 17 percent from 1992. California accounted for 39 percent of U.S. fresh peach output in 1992.

- Nectarine output for California is forecast 6 percent lower in 1993 than the record-large crop in 1992. California is the only state for which nectarine production is reported.
- Fresh plum output from California is expected 12 percent lower than last year. California supplied more than 90 percent of all U.S. fresh plums in 1992. The smaller crop is expected to boost grower returns from the rock-bottom level of last year when the season-average grower price hit an 8-year low.
- The forecast for fresh apricots indicates 1 percent less output than a year ago. California is the principal U.S. supplier of fresh apricots.
- The California sweet cherry crop is expected to total only 20,000 tons, 35 percent less than in 1992 and 44 percent below 1991. Although poor pollination has reduced the size of the crop, cool weather during the spring helped produce large cherries with increased sweetness. In early June, cherry prices f.o.b. the packinghouse were about 50 percent higher than year-earlier levels.

Tropical Fruit Areas Recover

Rains during the winter have aided the recovery of avocado, lime, and mango groves in Dade County, Florida. Virtually all trees except very young ones were damaged or destroyed by Hurricane Andrew in August 1992.

- Small crops of limes, avocados, and mangos in Florida are expected in 1993/94.
- Although acreage is down following the hurricane, rehabilitation is complete in many groves, and trees are expected to be in good to excellent condition for the 1993/94 season.

Florida's Tropical Fruit Acreage Drops

Florida's tropical fruit acreage is at its lowest level in 20 years, according to a survey completed in March 1993 by the Florida Agricultural Statistics Service. While some of the decrease reflects a long-term downward trend in avocado acreage, the precipitous drop from the survey in 1990 is attributed to damage from Hurricane Andrew, which swept across Florida's Dade County in August 1992.

Directly in Andrew's path were most of Florida's avocado, lime, and mango groves. The hurricane destroyed virtually all fruit on the trees at the time, broke branches, and uprooted many trees.

Florida's avocado acreage, declining for 10 years, dropped 33 percent between November 1990 and the 1993 aerial photography survey. Lime and mango acreages, which had been steady before Andrew, were down 66 and 37 percent in the 1993 survey.

Avocado Acreage At Half of 1984's

Florida's avocado area in March 1993, 6,104 acres, was the lowest since the 1971/72 season, but not all of the acreage decline can be attributed to Hurricane Andrew. Avocado acreage has been declining since 1984, when Florida reported 12,872 acres. New plantings of avocados dropped from 32,480 trees per year between 1978 and 1982, to 3,540 between 1983 and 1987, and to just 300 trees per year in 1988-92. No new avocado plantings were reported for 1991 and 1992, and very few by mid-March of 1993.

Florida's 1992/93 avocado production was down about 75 percent from last season, and at 280,000 50-pound bushels was only a quarter of the average output for the previous 5 years.

The Florida avocado harvest, which usually begins in June and ends in March, was less than half complete for the 1992/93 season when the hurricane struck. Fewer than 10,000 bushels were shipped following the storm.

Reduced output of avocados from Florida is not expected to have much effect on total U.S. avocado supplies and prices. California is the major U.S. avocado producer, producing nearly six times Florida's crop between 1986/87 and 1991/92. And California had a near-record 1992/93 avocado crop. But Florida's greenskin avocados normally fill a supply gap during the summer and early fall before California's harvest begins. Over the last 3 years, imports—mainly from Chile—have increased during the summer and early fall.

Lime Acreage Drops Sharply

Unlike avocado planting rates in Florida, the rates for limes had been steady over the last 5 years. Hurricane Andrew hit lime production hard, knocking out about two-thirds of Florida's acreage. Acreage dropped to 2,235 in 1993, the lowest reported in 28 years.

Florida's 1992/93 lime production was down 38 percent from the year earlier, and fresh shipments were down 32 percent. Florida's lime season begins in April, with the highest shipment volumes in June and July. Hurricane Andrew at the end of August virtually ended the 1992/93 marketing season in Florida. Additional limes imported from Mexico helped fill part of the supply gap.

Florida is the major source of U.S.-produced limes, though in the last several years the U.S. has imported more limes from Mexico than it produced do-

mestically. California has fewer than 1,000 acres of lime trees, and its shipment volume is usually 10-20 percent of Florida's.

The outlook for Florida lime production is dim for the next several years due to the loss of older trees. If the destroyed trees are replaced, they would need 2 years' growth before bearing fruit and 4-5 years before reaching full production. Florida's 1993/94 lime crop is expected to be less than half of the short 1992/93 crop.

Loss of Mango Trees Curbs 1993 Output

The 1992 mango harvest was completed before Andrew hit, so last year's 20-percent drop in production from 1991 was not the result of the hurricane. But the hurricane destroyed many mango trees. The number of bearing-age trees decreased from about 239,000 in 1992 to 161,600 in March 1993, most of the loss the result of Hurricane Andrew. Mango acreage in Florida, steady at 2,600-2,900 acres since 1984, was down 37 percent in 1993 from the 1990 survey.

Although Florida accounts for almost all of U.S. mango production, domestic production provided only about 5 percent of consumption from 1985 to 1989. Over the past 3 years, most mango imports came from Mexico.

Tropical fruit growers in southern Florida face increasing competition for land and water from urban expansion. Also, lowered U.S. tariffs on tropical fruits are sharpening competition between U.S. growers and foreign producers. These factors may discourage the replanting and expansion of the avocado, lime, and mango acreage in south Florida from the current low levels. [Diane Bertelsen (202) 219-0883]

Agricultural Economy

U.S. Sugar Output To Decline Slightly

U.S. sugar production for fiscal 1994 is forecast slightly lower than last year because of lower beet sugar production. Domestic sugar use is forecast to increase at about the same rate as during the past 5 years.

USDA extended the U.S. tariff-rate quota period for sugar to end on September 30, 1994 instead of September 30, 1993 while raising the quota level from 1.357 million short tons for 12 months, to 2.5 million over 24 months. The new quota effectively reduces the amount of sugar that can be imported annually by 107,000 tons. U.S. raw sugar prices have strengthened following the announcement of the quota extension.

- Total U.S. sugar output is projected at 7.6 million short tons, raw value, down 1 percent from fiscal 1993. A slight increase expected in cane sugar production is offset by a projected decline in beet sugar from the record 1992/93 crop.

- Domestic sugar use is projected at 9.2 million tons, an increase of 1.9 percent from the year before.
- Quota sugar imports are projected at 1.25 million short tons, essentially unchanged from the expected imports in fiscal 1993.
- U.S. refined beet sugar prices remained unchanged from May at 23.5 cents a pound. U.S. raw sugar prices rose about one-third cent a pound following the new quota announcement on May 11, to around 21.4 cents in mid-June.

Fresh Vegetable Prices To Stabilize

Following a spring of weather-induced volatility, fresh vegetable prices are expected to stabilize through mid-summer as local supplies become available. Excessive rains delayed plantings and disrupted shipments from California and Florida, major sources of fresh vegetables in winter and spring. During late spring and summer, fresh vegetable production expands to most states and to home gardens.

- Shipments of fresh vegetables were down 4 percent in January-April 1993 from a year earlier.
- During January-April, fresh vegetable retail prices averaged 5 percent above a year earlier, but dropped in late May and in June to levels near last year's.
- Retail prices for iceberg lettuce averaged 35 percent higher in January-April because of supply gaps caused largely by excessive rains in California. April shipments of iceberg lettuce were down almost a third from April 1992.
- Fresh tomato retail prices in January-April 1993 averaged 28 percent below a year earlier. Inclement weather had reduced Mexico's 1992 production and its exports to the U.S. Supplies recovered in January-April 1993, and tomato prices are expected to average about 80 cents per pound this summer, about the same as a year earlier.

Record Summer Onion Acreage

Planted acreage of summer storage-type onions is forecast to reach a record high in 1993. Late plantings in wet fields, however, may lead to yields below last year's record levels, keeping production steady in 1993. The increased acreage is in Idaho, Oregon, Washington, and California.

The summer storage-type onion crop accounts for 79 percent of U.S. onion acreage, and will supply most of the U.S. onions through next spring. Larger crops of summer nonstorage onions are expected from New Mexico and Washington, and good-quality supplies are expected from Texas. Supplies from these states bridge the gap until the storage crop becomes available later in the summer. Grower and retail prices of onions in the summer of 1993 are expected to be slightly above last year, but well below the weather-affected highs of this spring.

Sugarbeet Output To Decline Slightly In 1993/94

Item	1991/92	1992/93	1993/94 projections
<i>1,000 short tons, raw value</i>			
Supply			
Beginning stock	1,496	1,450	1,485
Production	7,229	7,700	7,600
Beet	3,836	4,340	4,200
Cane	3,393	3,360	3,400
Imports	2,192	1,850	1,880
Quota	1,486	1,250	1,250
Other	706	600	630
Total supply	10,917	11,000	10,965
Use			
Exports	630	490	560
Domestic use	8,866	9,025	9,200
Miscellaneous ¹	-29	0	0
Total use	9,467	9,515	9,760
Ending stocks	1,450	1,485	1,205
<i>Cents/lb.</i>			
Price	21.9	21.4 ²	NA

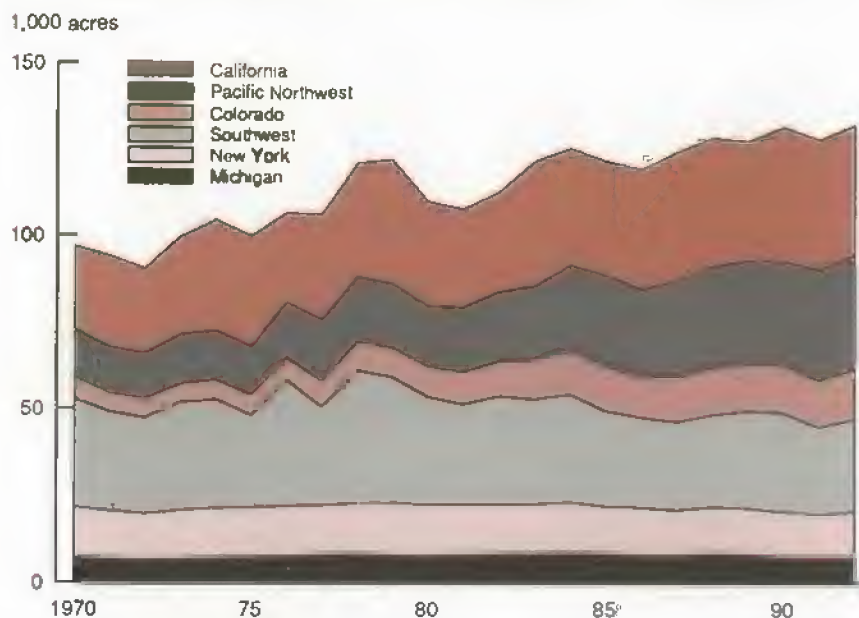
Based on June 10, 1993 World Agricultural Supply and Demand Estimates. Fiscal years.

¹ Refining loss/gain adjustment. ² Average October-June.

NA = Not available.

Agricultural Economy

California and Pacific Northwest Lead Expansion of Onion Acreage



Planted acreage, major producing states.

Pacific Northwest—Washington, Oregon, Idaho. Southwest—Texas and Mexico.

- Planted acreage of summer storage-type onions is forecast at a record 119,050 in 1993, up 6 percent from last year and about 5 percent above the 1990 record.
- Acreage of summer storage-type onions in California, the largest onion producing state, is up 16 percent from last year. Nearly three-fourths of this crop is used in processing.
- Shipping-point prices for fresh onions increased 17 percent in January-April from a year earlier.
- Retail prices for dry yellow onions averaged 14 percent above a year earlier in January-April, and are expected to average around 45 cents a pound during the summer quarter.

The demand for onions (storage and non-storage) continues to increase. Onions have a wide variety of uses, and the increasing use is due largely to the popularity of salad bars and fast foods and the rise of various ethnic restaurants. Introduction of several sweet nonstorage varieties such as Vidalia, Imperial Sweet,

Walla Walla Sweet, and Texas 1015 has helped expand demand during the past decade.

- Use of fresh onions is forecast at 4.1 billion pounds in 1993.
- Per capita fresh onion use is expected to reach 16 pounds, slightly above last year. In addition, about 1.5 pounds per capita (fresh-equivalent basis) is used in dehydrated onion products.
- Per capita use of fresh onions has grown 40 percent between 1980 and 1992.

[Glenn Zepp and Gary Lucier (202) 219-0883]

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Commodity Spotlight



Prices To Fall Sharply for U.S. Wheat

Changes in supply and demand are projected to generate a dramatic drop in wheat prices for the 1993 crop. The futures markets for 1993/94 contracts are well below a year earlier.

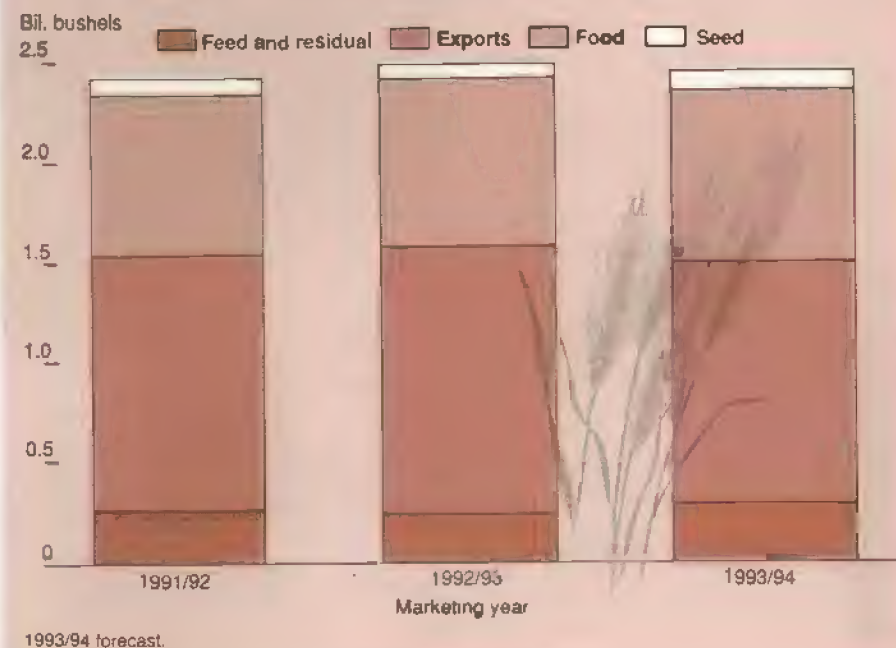
Season-average prices received by farmers fell below \$3 per bushel only three times in the last 14 years. The projected season-average farm price of \$2.55-2.95 in 1993/94 is lower than 4 out of the last 5 years, and down sharply from \$3.25 estimated for 1992/93. The farm price averaged \$2.61 in 1990/91, when ending stocks were even higher than projected for 1993/94.

Exports, Use Expected To Fall

Changes forecast in the components of supply and demand for 1993/94 are not dramatic when considered individually, but together they strongly affect ending stocks and prospective projected prices. Projected beginning stocks are up 6 percent, production up 3 percent, and imports up 4 percent. Added together, these increases would raise projected

Commodity Spotlight

Feed Use of U.S. Wheat To Rise as Exports Fall In 1993/94



supply only 3 percent. However, the projected rise of nearly 100 million bushels takes on important price implications as use is expected to drop.

While total 1993/94 domestic use is projected up 6 percent (about 65 million bushels), exports are projected to decline by 10 percent (130 million bushels). As less U.S. wheat is exported and more used for domestic feed instead of food, the average producer price declines. When wheat is priced for feed, its value is based on nutritional value to the animal being fed and the price of alternative feed concentrates. Quality is usually less important for wheat being fed to animals than it is for wheat that will be used for flour.

Feed and residual use of wheat in 1993/94 is projected up 50 million bushels to 275 million. In order to be attractive for feed use, wheat will have to be priced competitively with corn and other feed grains. The whole price structure of the feed grains market is lower than for wheat, including prevailing market prices, average per-bushel costs of production, and loan rates. In addition, ample corn supplies are projected for the

summer of 1993. As a result, wheat prices may move to the low end of the projected range in order to bid significant amounts into feed rations, even in regions like the Texas Panhandle, where corn supplies must be railed in, while wheat is locally produced.

Ending Stocks Up Nearly 30 Percent

Ending stocks of wheat are projected to reach 660 million bushels in 1993/94, an increase of 160 million bushels. This would be larger than in 3 of the last 5 years. The ratio of ending stocks to use would increase to 27 percent in 1993/94, up from 20 percent forecast for 1992/93.

The stocks-to-use ratio is an indicator of the relative tightness in supply and demand. The higher the ratio, the higher the reserve and the less likely wheat prices will rise significantly if there are unexpected increases in use or lower supplies.

Traditionally the stocks-to-use ratio has been used by many analysts to predict how much average farm prices will be

above the loan rate. In recent years, some changes have occurred in the traditional relationship as loan rates were lowered, U.S. stocks declined, foreign stocks increased, and the former Soviet Union has become almost totally dependent on financial assistance. Higher EC stocks may be dampening the price effect of lower U.S. stocks.

Although U.S. prices have been lower in recent years than the traditional relationship between the ratio and prices would indicate, the year-to-year changes have moved more or less as predicted. When the stocks-to-use ratio is in the range of 20-30 percent, each percentage point change seems to be generating about 8 cents of price change. The 7-percent increase in the stocks-to-use ratio projected for 1992/93 could be associated with a drop of about 30-50 cents per bushel in the average price received by farmers.

Moreover, government ownership of wheat during 1993/94 in Commodity Credit Corporation (CCC) inventories, is likely to be limited to wheat in the food security wheat reserve. It is much more likely that large supplies of privately owned wheat will be carried from 1993/94 into the next marketing year, especially if the market develops a "carry"—which occurs when the cash price is lower than nearby futures, and nearby futures are lower than later futures contracts. If the "carry" is large enough to cover storage costs and interest, then this price pattern encourages holding stocks of a large crop. This is because of the expectation that low prices at the beginning of the 1993/94 marketing year when farmer marketings are traditionally heaviest, would be followed by higher prices later.

During May 1993 the futures contracts for the 1993 crop (July contract in Kansas City and Chicago) reflect this expectation for lower prices during harvest. The slow pace of new-crop outstanding export sales may also contribute to low prices during harvest.

Glossary of Farm Program Terms

Deficiency payment. A payment made by the Commodity Credit Corporation (CCC) to farmers who participate in wheat, feed grain, rice, or cotton programs. The payment rate is per bushel, pound, or hundredweight. It is based on the difference between the price level established by law (target price) and the higher of the market price during a period specified by law, or the price support (loan) rate. The total payment is generally equal to the payment rate multiplied by the eligible acreage planted for harvest, and then multiplied by the program payment yield established for the particular farm.

Farmer-Owned Reserve (FOR). A program for wheat and feed grain producers under which they may place eligible grain in storage after maturity of their regular price support loans. FOR loans are for 27 months, with one 6-month extension at the discretion of the Secretary of Agriculture. The loans are nonrecourse in that farmers can forfeit the commodity held as collateral to the government in full settlement of the loan, without penalty and without paying accumulated interest.

Findley payments. These payments are referred to in legislation as emergency compensation. If the Commodity Credit Corporation price support (loan) rate is reduced, additional deficiency payments are made to producers to provide the same total return as if there had been no such reduction. The Findley payment rate is the statutory price support rate minus either (1) the national weighted season-average farm price for the marketing year, or (2) the announced price support level—whichever is higher. If the season-average price is above the statutory loan rate, no Findley payments are required.

Loan deficiency payments. Commodity Credit Corporation payments provided to producers who, although eligible to obtain a marketing loan for a wheat, feed grain, upland cotton, rice, oilseed, or honey crop, agree to forgo obtaining the loan. The payment is determined by multiplying the loan payment rate by the amount of commodity eligible for loan. The payment rate per unit is the announced loan level minus the repayment level used in the marketing loan.

Marketing loan program. This program allows producers to repay nonrecourse price support loans at less than the announced loan rates whenever the world price for the commodity is less than the loan rate. The programs are mandatory for oilseeds, upland cotton, and rice, and were discretionary for wheat, feed grains, and honey. Since there was no GATT agreement by June 30, 1992, marketing loans for wheat and feed grains became mandatory for 1993 crops.

Price support loan rate (also called price support rate). The price per unit (bushel, bale, pound, or hundredweight) at which the Commodity Credit Corporation will provide loans to farmers enabling them to hold their crops for later sale. Under the **price support loan program**, farmers may either sell the crops when prices rise enough to make the sale profitable and repay the price support loan, or they may forfeit the commodity to the CCC. In the latter case, the CCC stores the commodity and holds it off the market until prices rise above statutory levels that allow the CCC to sell the commodity.

FOR Use May Be Triggered

If, as expected, prices are low during harvest of the 1993 crop and increase later in the marketing season as supplies are lowered, several government programs could be affected. Low prices at harvest, with good potential for increases later, should encourage many producers to use the CCC 9-month price support loan program.

Also, the Secretary of Agriculture has discretion to provide extended loans to farmers by opening the Farmer-Owned Reserve (FOR) storage program for 1993-crop wheat, if either a market price or stocks-to-use condition is met. If both conditions are met, opening of the FOR would be mandated.

The price condition would be met if average farm prices are below 120 percent of the 1993 loan rate (\$2.94 per bushel) for a 90-day period. The stocks-to-use condition would be met if the projected ending stocks-to-use ratio for 1993 reaches 37.5 percent. Current forecasts indicate that only the price condition will be met, leaving the opening of the FOR to the Secretary's discretion.

Marketing loan provisions have been added to the wheat program for 1993/94, permitting farmers to repay price support loans at below the local county loan rate when world prices are less than the loan rate. By law, USDA is required to implement marketing loan provisions for wheat and feed grains beginning with 1993 crops. This requirement was triggered when the U.S. did not enter into a GATT agreement by June 30, 1992.

Although the projected marketing-year price range is above the \$2.45 national-average loan rate, the posted county price (PCP)—a proxy for the local market price—was below the county loan rate during harvest for some classes in some counties early in the 1993/94 marketing season. Producers in these counties could capture marketing loan gains or choose to receive loan deficiency payments.

Commodity Spotlight

Under marketing loan provisions, a producer may repay a CCC loan based on the outstanding loan principal plus interest, or the PCP, whichever is less. The amount of the loan principal forgiven is called the "marketing loan gain." Producers who agree to forgo eligibility for a loan may, alternatively, receive a loan deficiency payment (LDP). The LDP is equal to the positive difference between the county loan rate and the PCP. Marketing loan gains, LDP's, and Findley deficiency payments are subject to a combined \$75,000 payment limitation which is in addition to the \$50,000 payment limitation on regular deficiency payments.

The market value of production for wheat in 1993/94 is projected to be \$6.4-7.4 billion, down from \$8 billion for the 1992 crop.

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Upcoming Reports from USDA's Economic Research Service

The following are July release dates for ERS update reports (specified) and for summaries of situation and outlook reports. Summaries are issued at 3 p.m. Eastern time.

July

- 13 Cotton & Wool Update
- 16 Livestock & Poultry
- 19 Agricultural Outlook
- 20 Wheat
U.S. Agricultural
Trade Update
- 21 Fruit & Tree Nuts
Yearbook
- 23 Oil Crops Yearbook
Livestock & Poultry Update
- 26 Rice Yearbook
- 27 Vegetables & Specialties

Environment & Resources



Uncertain Future for Methyl Bromide

Methyl bromide, the most widely used chemical for fumigating fruit and vegetable soils—and a required treatment for many fruit imports entering the U.S.—has come under suspicion as an air pollutant. The Environmental Protection Agency (EPA) recently proposed listing methyl bromide as a Class I ozone-depleting substance under the Clean Air Act, which would require its use to be phased out in the U.S. by the year 2000.

USDA estimates that U.S. producers and consumers would lose approximately \$1.3-\$1.5 billion annually if agricultural uses of methyl bromide are banned. These losses would begin in the year 2000 if EPA defers the ban until then, rather than phasing use out gradually. Effective alternatives to methyl bromide are unavailable for many uses, and production of some crops could decline or move to other countries. Consumers could face reduced supplies and higher prices for tomatoes, strawberries, grapes, and other crops.

EPA makes most pesticide decisions under legislation which permits the benefits of pesticide use to be compared with the risks, and allows registration and use if the benefits are substantial and the risks negligible. The decision on whether to permit methyl bromide use will be made under the Clean Air Act, and will be based only on the air pollution risks associated with this chemical, with no comparison of the benefits of its use. Many scientific uncertainties regarding methyl bromide's relationship to ozone depletion are still unresolved.

U.S., Global Actions Differ

EPA defines Class I ozone-depleting substances as having an Ozone Depletion Potential (ODP) greater than 0.2. The Parties to the Montreal Protocol, including the U.S. and many other countries, at their November 1992 meeting in Copenhagen listed methyl bromide as a substance with an ODP of 0.7 as the "best estimate." A freeze on production of methyl bromide at 1991 levels was set to be in place by 1995, with exceptions for quarantine and preshipment uses. The Parties also called for a 2-year study of methyl bromide's ozone depletion potential.

The recent EPA proposal under the Clean Air Act—eliminating U.S. production and consumption of methyl bromide by 2000—goes beyond the Montreal Protocol action. Under the act, the future availability of methyl bromide in the U.S. could be extended only by changing its classification. For example, if methyl bromide were listed as a Class II substance, which would require a lower ODP estimate and the demonstration of many uncertainties, the phaseout period could be extended to 2013, giving more time to find alternatives. Also, if research showed that methyl bromide does not deplete ozone, methyl bromide could be taken off the list and its use allowed to continue.

The public comment period on EPA's proposal to eliminate methyl bromide use has already closed, but the final rule has not been issued.

Environment & Resources

Most Uses Are Agricultural

According to industry sources, approximately 64 million pounds of methyl bromide was used in the U.S. in 1990, mostly for agriculture-related purposes. Soil fumigation was the top use for methyl bromide, accounting for 44 to 49 million pounds. As a soil fumigant, methyl bromide is used to control insects, plant pathogens, nematodes, and weeds. In addition, approximately 5 million pounds was used for post-harvest and quarantine treatments, 4 to 9 million pounds for fumigating structures, and 6 million pounds as a chemical intermediate in manufacturing.

Based on a survey of the states to determine the most critical uses, USDA's National Agricultural Pesticide Impact Assessment Program analyzed the benefits of methyl bromide for soil fumigation on 21 crops in California, Florida, Georgia, North Carolina, and South Carolina. In addition, data were included on use of methyl bromide for soil fumigation in tobacco production in Kentucky, and on post-harvest treatment of citrus in Florida.

USDA's Animal and Plant Health Inspection Service (APHIS) provided an assessment of quarantine uses, focusing on imports of eight major fruits which accounted for the bulk of quarantine treatments. The eight fruits were apricots, grapes, grapefruit, lemons, peaches (including nectarines), plums, oranges, and tangerines. APHIS requires that shipments of these fruits from many of the importing countries be fumigated with methyl bromide as a condition of entry into the U.S. Over 90 percent of U.S. imports of apricots, grapes, peaches, plums, and tangerines in 1989/90 were treated with methyl bromide.

In the five states assessed, about 38 million pounds was used for soil fumigation, accounting for 80 percent of total soil fumigation use and 75 percent of agricultural use of methyl bromide. The largest soil fumigation uses were for tomatoes (13 million pounds), strawberries (6 million pounds), peppers (5 million pounds),

ornamental and nursery crops (4 million pounds), tobacco (4 million pounds), and grapes and melons (2 million pounds each). For the commodities included in the study, methyl bromide was used primarily in California and Florida.

Actions to ban or restrict methyl bromide use in the U.S. would be costly, because currently available alternative control practices are less effective or more expensive than methyl bromide. The primary soil fumigation alternatives considered in USDA's study are metam sodium, 1,3-D (not registered in California), and dazomet (registered for tobacco and a limited number of nonfood uses). The registration of another alternative, Vorlex, has been voluntarily canceled by its registrant.

Without methyl bromide, producers would have to rely on multiple applications of insecticides, nematicides, herbicides, and the alternative fungicides, and on crop rotation and other nonchemical alternatives for soil fumigation. Due to the compounding effects of a likely increase in various pests, estimates cannot be made for losses after the first few years without methyl bromide.

The APHIS study assumes that no alternative treatment is available for quarantine treatment. Potential alternatives for quarantine fumigation include chemical fumigants, contact pesticides, insect growth regulators, hot water dip, hot air, cold treatment, and irradiation. Irradiation is the only alternative that currently holds promise as an effective alternative

Impacts of Methyl Bromide Ban Would Fall Heavily on Tomato Production...

	Annual loss	
	With Vorlex	Without Vorlex
	\$ million	
Soil fumigation uses		
Food crops		
Tomatoes (fresh market)	157-164	327-360
Peppers	131	135
Strawberries	106-107	111-112
Cucumbers	72	72
Melons	29	29
Citrus ¹	25	25
Eggplants	12	12
Grapes	3	3
Nonfood crops		
Ornamentals	163	170
Tobacco	121-125	122-127
Forest seedlings	35	35
Total ²	856-867	1,044-1,081

...and on Fruit Imports

	Annual loss	
	\$ million	
Import quarantine uses		
Grapes	186-187	
Nectarines and peaches	151-152	
Plums	96	
Apricots	8	
Tangerines	3-7	
Total ³	444-450	

¹ Post-harvest use in Florida. ² Includes losses (with and without Vorlex) of less than \$1 million each on almonds, apples, apricots, carrots, cherries, nectarines, peaches, plums and prunes, sweet potatoes, and walnuts. ³ Includes losses of less than \$1 million each on grapefruit, lemons, and oranges.

Environment & Resources

The Treatment Of Imports

USDA's Animal and Plant Health Inspection Service requires that fresh fruit and vegetable imports either come from a country or region free of quarantined pests (subject to inspection at the port of entry), or be treated to prevent the pests' introduction and establishment in the U.S. Methods of disinfestation currently used are either chemical (methyl bromide fumigation) or physical (exposure to extreme hot or cold temperature).

Methyl bromide fumigation is a versatile and relatively inexpensive method for treating imports, and is the most widely used treatment. It is the only APHIS-approved import quarantine treatment currently available for some fruits and vegetables, including grapes, nectarines, peaches, okra, and plums. It may also be used in combination with other treatments. For example, citrus imported from Mexico that is cold-treated may be fumigated to reduce treatment duration.

Cold treatment exposes fruit to temperatures of 36 degrees Fahrenheit or below for specified periods ranging up to 22 days. It is applied principally to citrus, and the target pests are fruit flies. Most tropical and some subtropical fruits, such as mangos and papaya, cannot tolerate cold treatment.

Hot water immersion is a method particularly effective against fruit flies. The mango is the only fruit imported into the U.S. that APHIS has approved for treatment with this method.

Irradiation is not currently approved for import disinfestation. Additional research on appropriate dosage levels and phytosanitary safeguards will be required before irradiation treatment is possible.

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treatment, but it has not been approved for use in the U.S. and may face problems of consumer acceptance. An Economic Research Service study shows that the quarantine losses to agriculture from banning methyl bromide would be substantially less if irradiation were available as a substitute.

Economic Losses From a Ban

The USDA study estimated that the annual economic loss to U.S. producers and consumers resulting from the banning of methyl bromide for agricultural uses would be approximately \$1.3 to 1.5 billion—including \$800 to \$900 million from loss as soil fumigant and \$450 million from loss as a quarantine treatment. Actual losses are underestimated because the impacts of post-harvest, non-quarantine uses, quarantine treatments of non-food imports, and 20 percent of the soil fumigation use are excluded from the study.

Additionally, U.S. exports of cherries, peaches, strawberries, walnuts, cotton, and oak logs, worth \$200 million annually, are treated with methyl bromide as a condition of entry to the importing country. Without effective alternatives to methyl bromide, these markets for U.S. exports would be lost. Some of these commodities could be sold elsewhere at a lower price, but production of some crops may shift to other countries.

The voluntary cancellation by the registrant of Vorlex removes a major soil fumigation alternative to methyl bromide for melons, ornamentals peppers, strawberries, tomatoes, and tobacco. Without Vorlex as an alternative, economic loss would include an additional \$200 million per year if methyl bromide were banned, because the remaining alternatives are less effective. About 90 percent of the additional loss would be in fresh market tomatoes.

Without Vorlex as an alternative, the major portion of crop losses would be to producers of fresh-market tomatoes (\$350 million), ornamentals (\$170 million), tobacco (\$130 million), peppers (\$130 million), and strawberries (\$110 million). Florida tomato production would decline 45 to 50 percent, and strawberry production 65 to 70 percent, while Florida cucumber, eggplant, and pepper production would virtually disappear. A significant portion of the loss would be borne by U.S. consumers due to reduced supplies and higher prices of fruit, vegetables, and other crops. Imports could moderate price increases and consumer losses but would magnify financial losses by U.S. producers.

Imports from many countries require quarantine fumigation with methyl bromide to reduce or prevent the introduction of exotic pests into the U.S. Countries whose exports must be fumigated before entry to the U.S. market would lose a share of that market. The

U.S. Exports Worth Over \$200 Million Require Methyl Bromide Treatment

Commodity	Importing country	Annual value
		\$ million
Cotton	Egypt, Bangladesh, Pakistan, El Salvador, Guatemala, Peru	121
Fruits & nuts		
Cherries	Japan, Korea	43
Peaches/nectarines	Japan, Mexico	3
Strawberries	Australia	2
Walnuts	Japan	2
Oak logs	EC, Austria, Mexico	35
Total		206

Exports to countries where methyl bromide quarantine is a condition of entry.
Annual average, 1988-92

Environment & Resources

result would be higher prices for U.S. consumers during some months of the year, and economic losses to the exporting countries. Imports of apricots, grapes, nectarines, peaches, and plums from Chile, in particular, enter the U.S. in winter months when U.S. production is zero or near zero. Chilean exports of apricots, peaches/nectarines, plums, and grapes account for 10, 32, 40, and 70 percent of Chilean production. Chile markets more than half of these exports to the U.S.

The likelihood of developing new, effective fumigant alternatives to methyl bromide appears very remote. But the many scientific uncertainties regarding methyl bromide's relationship to ozone depletion include:

- the relative contributions of methyl bromide to the atmosphere from natural and anthropogenic (human-caused) sources;
- quantification of possible reaction changes involving methyl bromide that produce the relatively unreactive form of bromine—hydrogen bromide;
- the lifetime of methyl bromide in the atmosphere; and
- the amount of methyl bromide emissions from agricultural uses.

These may lead to further scientific investigation before a final determination on the classification and use of methyl bromide.

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Food & Marketing



Moderate Food Price Rise in 1993

Food prices have increased moderately over the first third of 1993 compared with the same period last year. The food component of the Consumer Price Index (CPI) rose less than half as much as all other goods and services. While food prices rose 1.7 percent above the first third of 1992, the CPI excluding food rose 3.5 percent.

The lower CPI for food pulled down the increase in the overall CPI to 3.2 percent, a moderate increase compared with the 4-5-percent annual increases from 1988 through 1991.

Slow growth in the general economy and its effect on consumer demand have played a major role in restraining price increases for most foods. Increases in real disposable personal income have been small, unemployment remains relatively high, and job security is uncertain in some sectors. Under these conditions, consumers have been cautious in all pur-

chase decisions. As for food purchases, consumers have been eating out less and buying fewer convenience foods, opting instead for more basic ingredients to prepare meals at home from scratch.

Slow growth in the economy has also affected the costs of processing and distributing food. Costs that occur beyond the farm gate—such as labor, packaging, transportation, and energy—are influenced more by the general economy than are farm commodities. With slow economic growth keeping inflation low, retail price increases reflecting processing and distribution costs have been small. In 1992, processing and distribution costs rose at the lowest rate in 20 years and are expected to remain small in 1993.

The general economy is expected to grow faster in the second half of 1993 than in the first half. Consumers will remain cautious in making spending decisions, but improvement in the employment picture could restore consumer confidence and strengthen demand. Food prices will more fully reflect increased consumer demand in 1994.

Egg, Meat Prices Up

While most food prices were stable during the first third of 1993, prices of eggs, red meat, poultry, and fresh vegetables increased. The CPI for eggs averaged 9.9 percent higher in the first third of 1993 than in the same period in 1992. While table-egg production was only fractionally lower than a year ago, egg exports were especially strong. Larger exports left fewer eggs for the domestic market, and egg prices are particularly sensitive to changes in supplies.

Beef prices were higher than expected in January-April because production was lower than expected. Harsh winter weather and a wet spring caused poor weight gains in hogs and cattle, resulting in fewer market-ready animals than expected. Slaughter weights of cattle averaged 20-25 pounds below a year earlier. Lower weights meant less meat that graded choice or better.

Food & Marketing

Smallest Rise in 20 Years for Food Marketing Costs

Food marketing costs, as measured by USDA's marketing bill, rose about 2 percent in 1992, the smallest increase of the last 20 years. The small increase reflected the slight rise in prices of most inputs purchased by the food industry, with higher labor costs accounting for most of the increase. Other inputs, such as packaging, energy, and transportation, rose little.

Marketing costs account for 78 percent of consumer food expenditures. The marketing bill measures the total cost of processing, wholesaling, distributing, and retailing foods produced by U.S. farmers and eaten by U.S. consumers. It is the difference between the value farmers receive for food and the amount consumers spend for consumption at and away from home. The marketing bill excludes expenditures for imported food and seafood.

Labor costs are the largest component of the marketing bill, accounting for 35 percent of consumer food spending. In 1992, labor costs grew 4.3 percent, a

slower pace than the annual average rise of 5.7 percent during the last 10 years. The smaller increase was due to a 0.03-percent drop in aggregate food industry employment, compared with an annual average 2.2-percent rise over the last 10 years. The decline in aggregate food industry employment was attributable largely to slow retail sales growth associated with the sluggish economy. Consumers spent 11.4 percent of disposable income on food in 1992, a record low.

Packaging is the second-largest component of the marketing bill, accounting for 8 percent of the food dollar. Costs of packaging materials rose only 2.9 percent last year, the smallest increase in the last decade. Two major factors explain this small increase. First, consumers responded to the weak economy by reducing purchases of value-added products, such as frozen prepared dinners, which require specialized packaging. Second, the aggregate price of packaging materials fell 1.8 percent in 1992.

Transportation costs incurred by the food industry, 4.5 percent of the food dollar, rose only 1 percent in 1992. Railroad freight rates rose 0.6 percent, while operating costs of trucks hauling fresh produce fell 2 percent. Fuel and labor account for half of total truck operating costs, and fuel costs fell 6 percent while wages remained steady. Other expenses—such as depreciation and maintenance, overhead, licenses, and insurance—declined an average of 1.7 percent.

Food industry energy costs rose 3.1 percent last year. Higher energy costs resulted largely from the expanded size of the food industry. The energy costs of processing and retailing food are affected primarily by natural gas and electricity prices. A 1.1-percent rise in the price of electricity used by food marketing firms was a major cause of the 1992 energy cost increase. Natural gas prices dropped slightly as supplies increased.

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Small Gains in Meat, Poultry Prices Forecast for 1993

Consumer Price Index	1990	1991	1992	Forecast 1993
Percent change				
All items	5.4	4.2	3.0	2 to 4
Food	5.8	2.9	1.2	2 to 3
Food away from home	4.7	3.4	2.0	2 to 3
Food at home	6.5	2.6	0.7	2 to 3
Meat, poultry, and fish	7.3	2.3	-0.8	1 to 3
Meats	10.1	3.1	-1.4	1 to 3
Beef and veal	8.0	2.8	-0.1	2 to 3
Pork	14.7	3.3	-4.7	1 to 3
Other meats	9.3	3.7	0.2	0 to 2
Poultry	-0.2	-0.8	-0.1	2 to 4
Fish and seafood	2.2	1.1	2.3	2 to 4
Eggs	4.7	-2.3	-10.6	7 to 10
Dairy products	9.4	-1.1	2.7	1 to 3
Fats and oils	4.2	4.3	-1.4	0 to 2
Fresh fruits and vegetables	8.0	4.6	-0.3	1 to 3
Fresh fruits	12.1	13.5	-5.0	1 to 3
Fresh vegetables	5.6	2.2	2.3	4 to 7
Processed fruits and vegetables	8.2	-1.9	2.7	-2 to 0
Processed fruits	8.7	-3.7	4.5	-4 to -2
Processed vegetables	2.7	0.8	0.2	1 to 3
Sugar and sweets	4.4	3.7	2.9	0 to 2
Cereals and bakery products	5.7	4.1	3.9	3 to 5
Nonalcoholic beverages	2.0	0.5	0.2	0 to 2
Other prepared foods	4.5	4.5	2.2	2 to 4

Source of historical data: Bureau of Labor Statistics. Forecasts by Economic Research Service, USDA.

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Retail pork prices are expected to rise in the second and third quarters as summer demand increases, but to decline in the fourth quarter as supplies increase seasonally. Beef prices will average slightly below the first half of the year as more choice beef becomes available.

Poultry prices in the first third of 1993 were also higher than expected. While broiler production was up 4-5 percent from a year earlier, exports in 1993 are running 8-10 percent above last year, offsetting increased production and tightening domestic supplies. Poultry prices also increased in response to higher red meat prices as consumers substituted lower priced chicken for beef and pork.

Prices of poultry are expected to remain stable through the summer, with some seasonal declines in November and December.

Fresh vegetables were also hit by wet winter and spring weather. Wet fields caused delays in planting and harvesting in California and Arizona. Higher prices were particularly noticeable for lettuce and tomatoes, and prices of many salad-type vegetables also rose. Delayed plantings result in an overlap of harvests in different growing areas, causing sudden large changes in available supplies and in prices.

Fresh vegetable prices averaged 4.8 percent higher during the first third of 1993 than a year earlier. Vegetable prices are expected to decline as summer production expands to most areas.

The CPI for all food is expected to rise 2-3 percent in 1993. Much of the increase has already occurred because of the cold, wet weather conditions in January-April. Supplies of most foods will be more than adequate to meet demand, which is expected to remain stable given conditions in the general economy. Inflation will be moderate, putting little pressure on costs of processing, distributing, and marketing foods.

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July Releases from USDA's Agricultural Statistics Board

The following reports are issued at 3 p.m. Eastern time on the dates shown.

July

- 2 Poultry Slaughter
- 6 Agricultural Prices, Annual
Crop Progress
Egg Products
- 7 Broiler Hatchery
Dairy Products
- 8 Noncitrus Fruits & Nuts,
Annual
- 12 Crop Production
Crop Progress
- 13 Turkey Hatchery
- 14 Broiler Hatchery
- 15 Milk Production
- 16 Vegetables
- 19 Crop Progress
- 21 Broiler Hatchery
Cold Storage
Mink
- 22 Catfish Processing
- 23 Cattle
Cattle on Feed
Livestock Slaughter
- 26 Crop Progress
Eggs, Chickens, &
Turkeys
- 28 Broiler Hatchery
Peanut Stocks &
Processing
- 29 Catfish Production
Farm Numbers & Land
in Farms
- 30 Agricultural Prices

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Ministry of Foreign Affairs: Royal Danish Embassy

Solutions for Ag-Related Pollution: The EC Approach

The dramatic rise in agricultural productivity in the European Community (EC) since the early 1950's has not been without environmental costs. With the achievement of agricultural self-sufficiency, long-term positive production growth, and skyrocketing farm export value during this period, have come problems with water pollution, deforestation, and loss of wildlife habitat. The EC's Common Agricultural Policy (CAP), which provides high support prices and surplus commodity purchases, has contributed to the impressive record of production growth, but also to the intensification of input use.

Western Europe is the largest agrochemical sales market in the world, and in 1991 held a market share of 31 percent. Fertilizer use increased 400 percent between 1950 and 1986 in the countries that now comprise the EC; the use of pesticides rose by 30-50 percent between 1975 and 1986. However, in many northern European countries, chemical use began to plateau and even decrease by the mid-1980's, as countries started to grapple with environmental concerns.

In many regions, heavy fertilizer use has damaged water quality, contributing to water pollution problems with the leaching of nitrates, phosphates, and heavy metals through susceptible soils. Native forests and grassland have been converted to agricultural uses. Since 1945, England and Wales have lost 98 percent of old pasture, 70 percent of original peatlands, 58 percent of ancient forest, and 40 percent of heathland.

Loss of species diversity has also become a problem in Europe. About half of the mammal and a third of the bird species in France and Germany are now considered threatened, compared with 11 percent and 7 percent in the U.S. Declining farm numbers throughout the EC and increasing farm size have also led to specialization, further intensification of chemical use, and increased interest in policies to decrease the intensity of input use (extensify) in agricultural production.

Europe is a rich agricultural region that has only recently confronted the question of sustainability—of the resource base, of the health and safety of consumers, farmworkers, and wildlife, and of the EC's ability to maintain a strong position in foreign trade of agricultural products.

Environmental Goals Set in the North

Resource endowments vary considerably throughout Europe. The EC encompasses 300 different types of soil, 200 types of vegetation, 6,000 plant species, 100,000 invertebrate species, and 600 bird types. Production-induced environmental problems vary with regional resource characteristics. The resource-rich regions, both agriculturally and otherwise, are located within and around the London-Milan axis, Denmark, and the Netherlands, and include the Paris basin, the central and north-western regions of Germany, and the Po Valley of Italy.

Priorities and policies for improving water quality, reducing pesticide use, and reaching other environmental goals vary by country. A mixture of regulations (which tend to force producers to adopt the same standards) and incentive-based regulatory approaches (which give the producer more flexibility on how to reduce pollution) are being proposed and adopted. Germany, Denmark, and the Netherlands are among the leaders in Europe in environmental pollution control, and France, the biggest agrochemical user in Europe, has begun to confront these issues.

Water quality is the top concern in the Netherlands. Groundwater contamination and acidification of rainwater are among the environmental consequences of homogeneous cropping patterns and associated management methods used in the Netherlands. The use of soil fumigants to combat nematodes in potato production in the north has exposed a high water table to contamination through the leaching of pesticides. Intensive animal production and overapplication of manure on the sandy soils in the south and southeast has created problems of nitrogen leaching into groundwater. In addition, volatilization of ammonia from animal manures contributes to acidification of rainwater and subsequent forest and crop damage.

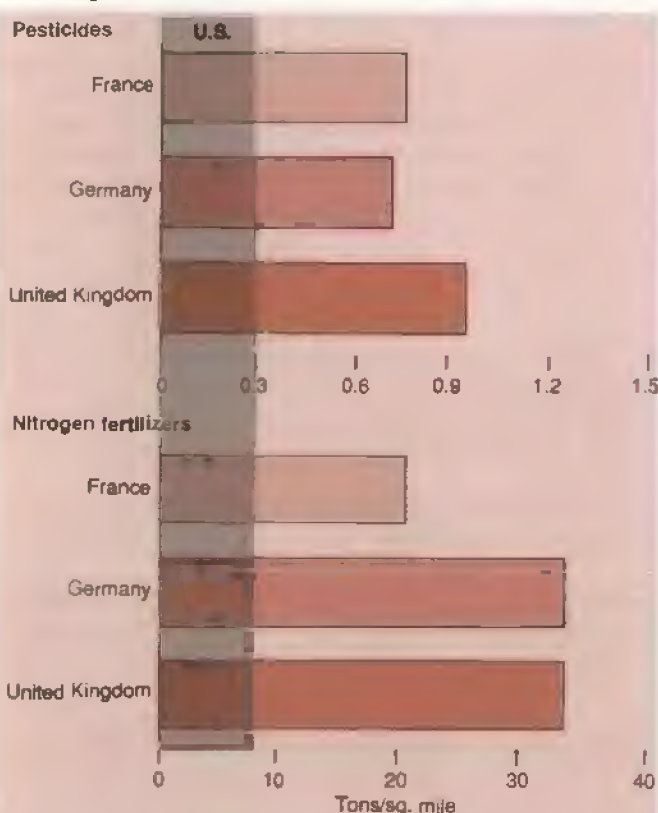
Dutch farmers use about 18 pounds of plant protection chemicals per acre each year, considerably more than Belgian farmers (11 pounds per acre), French and Swiss farmers (5.3 pounds), German farmers (3.6 pounds), or U.S. growers (2 pounds). The Dutch have used pesticides intensively because of a climate conducive to fungal and bacterial disease, narrow crop rotations with little diversity in cropping patterns to disrupt pest life

cycles, and large exports of propagative materials and floriculture products (which must meet high phytosanitary standards of importing countries).

The Dutch government instituted a plan in June 1991 to decrease pollution pressures from agricultural practices and address synthetic fertilizer and chemical use, while other new regulations specifically address the use of manure and soil sterilization products.

- Fertilizer use is to be reduced 35 percent (from 1985 levels) by 1995, and 50 percent by 2000. Farmers will initially be allowed to attain these goals by whatever means they choose, but an understanding exists between the Dutch government and farm groups that if the 1995 goal is not met, a tax on input use will be established to achieve the national goals.
- The use of pesticides is to be reduced 50 percent by 2000.
- New input use regulations stipulate that soil sterilization products to control insects and nematodes, which account for 75 percent of Dutch pesticide use, can be purchased

Agrochemical Use by Large EC Producing Countries Is Still High



1991 use. Tons per square mile of arable land.

Source: Organization for Economic Cooperation and Development.

only on prescription, and can be applied only every 4 years to a particular field.

- Measures to decrease livestock numbers, especially of swine, have been proposed to lessen the manure surplus, which is currently estimated at 15 million tons yearly. The construction of manure processing plants has also been proposed to lessen the manure surplus—the surplus could be dried, packaged, and sold for export.

The Dutch Institute for Agricultural Economics has estimated that the proposed input restrictions for 1995 and 2000 will place 30-50 percent of Dutch arable farms under financial stress. The government has offered a plan to provide financial assistance to the agricultural sector for the development of production technologies that address environmental and food safety concerns while maintaining economic and technical efficiencies.

Denmark focuses on regulatory measures. Confronted with many of the same problems as the Dutch—nutrients leaching into groundwater from overapplication of animal wastes, soil insect problems caused by narrow crop rotations, and the loss of species diversity—Danish policymakers are focusing on regulatory measures to limit environmental damage from farm practices.

- The 1987 Aquatic Environment Program obliged farmers to ensure that adequate storage exists for excess manure—farms greater than 25 acres were ordered to prepare fertilizer management plans with the objective of decreasing nitrogen leaching 50 percent by 1995. If this goal is not reached by 1995, a tax on fertilizer use will be applied, and proceeds used to fund educational programs on pollution control in agriculture.
- Another policy specifies a national goal of 50-percent reduction in pesticide use by 1995. The interim target of 25-percent reduction by 1990 was reached in 1988.
- The approximately 250 pesticide active ingredients registered for use in Denmark in 1988 were reevaluated for possible harmful environmental and human effects. As a result, 32 chemicals were withdrawn from use in 1989 because of unacceptable levels of toxicity.
- A sum of 50 million kroner (\$7.8 million) has been allocated through 1997 to research organic farming practices, and to provide financial assistance to farmers wishing to convert from conventional to organic farming methods.

In the longer term it is hoped that the gradual movement toward fewer and larger farms and "extensifying" the scale of Danish agriculture will help relieve pressures on the environment under current production practices.

French are implementing a "Green Plan." Nitrates found recently in drinking water supplies have heightened awareness of environmental problems. France spent approximately \$2.5 billion on plant protection and fertilizer products in 1991, less than

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in the previous year. Pesticide sales and use in France increased by more than 12 percent in 1989 and 1990, but decreased about 4 percent in 1991.

- In June 1990, the Environment Ministry introduced a "Green Plan" for preventing and reducing pollution, managing water resources, preserving rural landscapes, and protecting wildlife.
- In April 1991, the Environment Ministry introduced a "Water Plan" for better managing water resources and lessening pollution from both point and nonpoint sources. Rules requiring users to pay true water consumption costs would be tightened under this plan.
- Legislation enacted in February 1992 requires French livestock farmers to obtain government permission to increase the number of animals on the farm. Requests will be judged on the ability of a farm to handle waste disposal. However, enforcement may be difficult because of the strength of farm unions in opposing expensive regulations.

Germans are taking action at the local and national level. The German government is concerned about environmental pressures caused by agricultural intensification, and plans actions on soil erosion and compaction, endangered species, contamination and eutrophication of surface waters, groundwater contamination by nitrates and pesticides, threats to food safety and quality, and air pollutants.

- The government has entered into contracts with individual farmers to promote extensification to lessen production pressures on the environment and to curtail production of commodities in surplus. These include payments for practices such as leaving crop edges unsprayed and meadows unused during wildlife hatching periods.
- Some regions have enacted local ordinances that prohibit use of pesticides on nonagricultural fields and the conversion of forested areas to agricultural uses.

In addition to Germany, France, Denmark, and the Netherlands, most countries in northern Europe are expressing concern for agricultural and industrial practices that damage the environment, and enacting legislation to counteract and prevent these sources of pollution.

Southern Europe Faces Unique Environmental Problems

The countries in the Mediterranean region are generally less developed than their northern neighbors and characteristically express a greater concern for "pulling even" economically rather than controlling or cleaning up the negative effects of agricultural and industrial expansion. The less developed EC nations,

including Spain, Portugal, Greece, as well as regions of southern Italy, are generally the most recently integrated as members. The EC budgeted ECU 1.2 billion (\$1.4 billion) for undertaking environmental projects—air pollution and soil erosion control, countryside preservation, and promotion of clean technologies—in the less developed regions during 1989-93.

However, for much of southern Europe, sewage treatment and water purification needs are more urgent than other pollution control. The European Commission in 1990 established a program to improve water purification and sewage treatment facilities in the most economically depressed coastal Mediterranean communities. Approximately 250 coastal towns, with populations of between 10,000 and 100,000 persons eligible for EC support, either have no infrastructure for sewage treatment or disposal, or are deficient. In Italy, almost half of the existing 1,580 sewage treatment works no longer function. In Spain, 80 percent of municipalities are without treatment plants, and some existing plants are not functional.

Southern European farmers specialize in the production of fruits and vegetables, livestock, olives, sunflowers, tobacco, and some cereal grains. The quality of arable land and yields in the south is low compared with the north, and average- and high-fertility soils are rare. Farm incomes are low and production costs are high. In 1989, average farm size was only 17 acres.

Conditions in Spain illustrate the difficulties with agricultural production and environmental protection in southern Europe. Although about 40 percent of Spain's 125 million acres of land is considered suitable for cultivation, the soil is of generally poor quality. The slow adoption of new agricultural technologies is attributed to the roughness of the terrain and small farm size. Twenty five percent of Spain's 2.3 million farms had less than 2.5 acres of land in 1989, and 62 percent had fewer than 12 acres.

Most of the natural forests of the Iberian Peninsula have disappeared because of erosion and uncontrolled harvesting for firewood, timber, or the creation of pastureland. A reforestation program has been underway in Spain since 1940 with aims of meeting market demand for forest products, controlling erosion, and providing seasonal employment in rural areas.

Environmental concerns focus on soil erosion, desertification, and forest fires. In addition, maintaining marginal farms is a key concern of agricultural policy in the south. The traditional rural heritage and social structure of the Mediterranean region are directly linked to the agricultural economy. Developing policies to ensure the continued existence of southern farmers has occupied individual national assemblies as well as the EC community.

Pesticide Use In Denmark, France, and Germany Begins To Ease After 1984

Country	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988
	Tons		Percent of 1975							
Denmark	4,757	104	127	159	167	169	169	134	124	127
France	4,120	187	196	227	219	236	228	231	209	225
Germany*	24,981	132	127	118	125	130	120	126	120	—
Greece	31,593	99	—	—	—	111	—	—	—	—
Ireland	1,166	126	—	—	—	193	—	—	—	—
Italy	142,760	162	133	116	109	114	116	110	136	137
Netherlands	17,439	—	—	—	—	119	120	118	104	104
Portugal	17,439	131	84	83	68	92	92	65	69	74

— = Not available.

*Federal Republic of Germany.

Source: Organization for Economic Cooperation and Development.

New Policies

Reducing Chemical Use

Chemicals are still used far more intensively in Europe than in the U.S.—fertilizer use per acre in Germany and France is more than four times as much as U.S. use, and pesticide use is more than double the U.S. level. But environmental concern and legislation has led to a plateau or even a decrease in use in many countries.

Nitrogen fertilizer has been the single most important contributor to farm productivity growth in Western Europe since the 1950's. After 30 years of nearly continuous increase, nitrogen fertilizer use has leveled off or begun to decline in many countries. Between 1985 and 1989, nitrogen fertilizer consumption in Denmark, Germany, and Belgium remained essentially unchanged, while in the Netherlands, Italy, and the United Kingdom, consumption decreased by 13 percent, 12 percent, and 6 percent. Consumption in France, Ireland, Portugal, and Spain, however, increased between 10 and 15 percent. These trends reflect regional differences in nitrogen loading problems as well as the abilities of each nation to effect substantive control measures.

Portugal, Spain, and Greece are just in the process of converting from a labor- to a capital-intensive agricultural sector, and productivity gains from fertilizer use have begun to be realized only recently. In addition, the Mediterranean region soils, although they require substantial nutrient augmentation, absorb a greater percentage of applied chemical or organic fertilizer, lessening the pollution pressures on water sources. Indeed, one of the principal environmental concerns in southern Europe, along with forest fires and desertification, is soil erosion and subsequent loss of nutrients and fertility.

Pesticide use in the northern European nations also began to decline around the mid-1980's, after many decades of expansion, reflecting increased environmental awareness by the citizenry and the imposition of stricter environmental codes to limit the use of agrochemical products. Denmark decreased aggregate pesticide use by 25 percent between 1985 and 1988, West Ger-

many by 8 percent, and the Netherlands by 13 percent. Industry analysts predict that changes to the traditional production-based subsidy programs will cause pesticide use to decrease 15 percent by 1995 throughout Europe.

CAP Reforms Include

Environmental Protection

Enacted in 1962, the CAP set goals guaranteeing food security at stable and reasonable prices, improving agricultural productivity through technical progress, and providing farmers with a reasonable standard of living. In the years since its inception, the principal objectives of the CAP have been realized. Output has increased significantly to the point that the supply of some foods has become a problem of excess. Food expenditures have decreased as a percentage of the average household budget, though prices for some foods remain artificially high due to an intricate system of price supports.

CAP expenditures have also resulted in the EC's balance of trade being markedly aided by agricultural exports, the adoption of labor-saving technologies, and the realization of high yields for field crops due to heavy input use. Agricultural sector real incomes have increased steadily. EC farm incomes are now more stable than farm incomes in the U.S.

However, the CAP has also contributed unwanted effects, including a heavily subsidized export policy that led to charges of unfair EC trade practices, higher EC food prices than in world markets, continued surplus production, and environmental problems from high-input use levels. Further, farm incomes have risen in an inequitable way, with support directed toward the largest and most intensive farms, typically in the north, contributing to slower economic development in the Mediterranean region. Moreover, between 1975 and 1989 the per capita purchasing power of the agricultural population improved very little relative to urban Europeans, despite smaller farm numbers. Finally, linking support to output has intensified production methods and added to environmental problems.

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The CAP as originally implemented corresponded well to a food deficit situation. Now that the agricultural sector is producing surpluses significantly beyond the absorption capacity of the domestic market, EC nations are focused on implementing CAP reform that protects the economic health of the farm sector and improves the environmental integrity of the region.

The CAP reform package agreed to in May 1992 is expected to address these concerns by moving toward decoupling of price and income support from production (farmers will still have to plant to receive payments, though mandatory set-aside will restrict acreage). Reforms will also include establishing a direct payment system, subsidizing specific environmental protection programs, and financing an expanded afforestation program to discourage the abandonment of marginal agricultural lands.

Further, the EC government has determined that contemporary CAP objectives will include:

- maintaining farm families on the land to preserve the fabric of European society and promote a vital rural economy;
- emphasis on environmental stewardship along with production efficiency in devising new policies and programs;
- restoration and maintenance of an equilibrium between supply and demand under conditions of rising agricultural output and saturation of demand; and
- encouragement of extensification in production to reduce surplus commodities and promote sustainability of the resource base.

In addition, as the world's leading importer and second leading exporter, the EC seeks to devise policies to promote domestic consumption. Finally, an important goal is the maintenance of agriculture in less endowed regions in order to preserve the landscape, contribute to nature conservation, and avoid the underuse or abandonment of farmland, which can lead to forest fires, avalanches, mud slides, rapid erosion, and desertification.

The direct and indirect costs of program reform may affect producer and consumer prices. Prices paid by consumers for agricultural products in Europe have lagged behind the prices for industrial products and wages, so that even though typical European consumers are paying higher overall prices on average than their American counterparts, the average European family's food shopping basket costs have steadily declined over the past 30 years—from 25 percent of total income in 1960 to 16 percent in 1990.

Reforms to the CAP are attempting to break the pattern of subsidy-based production by establishing a more prominent role for market signals in production decisions, and by lessening the

overall level of support for European agriculture. With decreasing disparity between world and EC prices, production surpluses are expected to decline, and agricultural commodity supply should more closely reflect conditions of demand, moving toward market equilibrium. Lower product prices should reduce incentives for intense production practices and thus lessen environmental pressures. Policy reform may also include direct income transfers to farmers in addition to payments for environmental stewardship, as well as diminished support through price intervention.

Under a reformed CAP regime the farmer will have discretion in determining which production and environmental objectives are technically and economically feasible. Depending upon the level of incentives, farmers can alter the enterprise mix to include stewardship.

Environmental Stewardship In a World Market

The key issues in determining national share of world commodity markets involve the coordination of pricing policies, the extent of export subsidies, and domestic and foreign demand. Under environmental policy constraints, the degree of input intensification that causes environmental stress is also a factor.

The environmental consequences of agricultural intensification have been more acute in northern Europe than in the U.S. because of the concentration of arable land there and the inability of the land to dissipate environmental shocks. Also, some environmental protection policies proposed in Europe have already been enacted in the U.S. (e.g., set-aside, CRP), and modern agricultural input technology in the U.S. has incorporated some environmental as well as efficiency aspects, particularly advanced fertilizer application techniques and newer pesticide products which reduce input use.

With similar technology available to EC farmers, and the ability to substitute technology for greater input use, production potential should be maintained. It remains to be seen what impact environmental policy directives have on world commodity market shares.

In many respects, current CAP reforms do not set environmental protection as their main goal. But many environmental protection policies instituted and proposed in EC countries go beyond the environmental protection measures that have been taken so far in the U.S.—for example, providing economic incentives and support services to farmers attempting the conversion to sustainable practices.

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Producing Safer Poultry: Modernizing The Methods

The two most frequent bacterial agents of foodborne disease are *Salmonella* and *Campylobacter*. Human diseases caused by *Salmonella* are frequently associated with both chicken and egg consumption, while diseases caused by *Campylobacter* have been associated with chicken consumption. These bacteria cause salmonellosis and campylobacteriosis, which are intestinal illnesses.

The proportion of salmonellosis outbreaks associated with chicken and eggs has fluctuated. For example, after the mandated pasteurization of processed eggs and removal of cracked eggs from the shell-egg market in 1970, egg-related outbreaks fell sharply, only to rise in the 1980's as a new strain, *Salmonella enteritidis* (Se), spread from the Northeast across the nation, reaching California in 1993.

The Centers for Disease Control and Prevention (CDC) estimates that 2 million cases of salmonellosis occur each year—96 percent caused by food—and that 1,000 to 2,000 cases end in death. About 2.1 million cases of campylobacteriosis occur each year, with 120 to 360 cases resulting in death. These figures translate into about 1.5 percent of the population affected by these diseases each year. Deaths from both diseases combined occur in less than 1 per 100,000 cases per year. Most of these cases go unreported.

People with weak immune systems are especially at risk for foodborne illnesses—such as children under 5, the elderly, and those with AIDS, cancer, or other diseases in which the immune system is suppressed by disease or medication. The proportion of the U.S. population at risk has been increasing and is also linked to the increase in salmonellosis and campylobacteriosis.

The rise in salmonellosis outbreaks associated with chicken is partly tied to the increasing consumption of poultry products. Poultry consumption increased 35 percent during the last 10 years, as consumers substituted chicken for other meats, partly because of concerns over dietary fat content, and partly because chicken has become cheaper compared with other meats.

Outbreaks of salmonellosis have been associated with consumption of inadequately cooked poultry and recipes containing raw or lightly cooked eggs. Sanitary practices and thorough cooking by food handlers can reduce the likelihood of salmonellosis.

However, thorough cooking might make some egg dishes less palatable. An alternative approach to reducing risks of these diseases is minimizing the prevalence of *Salmonella* and *Campylobacter* in raw products. While *Salmonella* and *Campylobacter* are natural parts of animal production, their prevalence can be affected by on-farm production and slaughtering practices and by processing treatments.

Poultry and egg producers and processors are collaborating with the government to discover methods for improved bacterial control on the farm and in the processing plant, and are beginning to adopt new control measures. USDA and other government agencies are also undertaking a more rigorous regulatory effort in assuring the safety of eggs and poultry.

The Illnesses Are Costly

Salmonellosis and campylobacteriosis cause symptoms ranging from a day or two of mild diarrhea and vomiting, to hospitalization for dehydration, diarrhea, or blood poisoning, to even death in some cases. Death is more common for salmonellosis than for campylobacteriosis. The severity of the symptoms depends in part on the number of bacteria consumed and the body's ability to fight off the bacteria.

USDA's Economic Research Service (ERS) estimates that salmonellosis caused by all food sources cost the nation \$1.2 billion to \$1.6 billion in medical costs and productivity losses in 1992. The lower estimate is based on CDC's surveillance of laboratory tests ordered by physicians, while the higher estimate is based on surveys of reported foodborne outbreaks investigated by CDC. Productivity losses from deaths were either the largest or the second-largest cost category.

Based on 1983-87 data from CDC, chicken- and egg-related salmonellosis cases represent 23 and 10 percent of total salmonellosis cases, including cases traced to egg salad and other combination food dishes made from chicken or eggs. Chicken- and egg-related salmonellosis cases cost \$275-\$375

Special Articles

Costs of Salmonellosis Exceed \$1 Billion Annually

Disease/severity	Surveillance data		Outbreak data	
	Cases	Annual medical & productivity costs	Cases	Annual medical & productivity costs
	Number	\$ million	Number	\$ million
Salmonellosis				
Mild cases	1,842,240	478	1,788,480	464
Physician visits	42,240	32	96,960	73
Hospitalization	34,560	289	32,640	273
Deaths	960	389	1,920	777
Total	1,920,000	1,188	1,920,000	1,588
Campylobacteriosis				
Mild cases	2,019,880	524	1,964,640	510
Physician visits	44,000	33	101,000	76
Hospitalization	36,000	302	34,000	285
Deaths	120	49	360	146
Total	2,100,000	907	2,100,000	1,016

Estimated costs, 1992.

million and \$120-\$160 million in 1992. The estimates are based on the cost-of-illness method which looks at medical costs and lost productivity from the disease. Four severity groups were examined:

- mild—no medical attention,
- visit to a physician,
- hospitalization, and
- death.

Cases were allocated to the four groups according to CDC surveys of persons with confirmed laboratory tests for salmonellosis, or CDC investigations of salmonellosis outbreaks.

Medical costs include expenses for doctor visits, medicine, and hospital care. Productivity losses refer to earnings lost due to illness or death. Deaths were estimated using the age distribution for salmonellosis deaths reported in *Vital Statistics*, and multiplied by the present value of lifetime productivity losses. The present value was calculated using a 3-percent discount rate. The estimate also includes some household-produced services and a 60-percent risk-aversion premium.

Costs were also estimated by ERS for campylobacteriosis. Hospitalized cases, and cases where the victim only saw a physician, were assumed to be similar in severity to the corresponding categories of salmonellosis. Costs of illness for each severity group were also assumed to be identical with the costs for salmonellosis. Total medical costs and productivity losses for all campylobacteriosis cases were estimated at \$0.9 billion to \$1 billion in 1992.

A 1984 study by the Seattle-King County Health Department found that 48 percent of the campylobacteriosis cases could be epidemiologically linked to chicken, through consumption of undercooked chicken and cross-contamination of other foods by raw chicken. If this percentage is applied to the 2.1 million cases nationally, the medical costs and productivity losses due to campylobacteriosis caused by chicken would be \$435-\$490 million in 1992.

The cost estimates for salmonellosis and campylobacteriosis do not include the cost of pain and suffering, the value of lost leisure time due to illness, or the time consumers, producers, and government inspectors take for preventive actions. Costs would increase even more if the costs of associated chronic diseases and other complications could be estimated and included. Examples are arthritis and colitis resulting from salmonellosis, and Guillian-Barre syndrome, a neurological disease that can lead to paralysis, which develops in a small percentage of persons with campylobacteriosis.

Poultry Industry Is Adopting Controls

The poultry industry has undertaken measures over the last 5 years to control *Salmonella* at all levels—farm, processing plant, food distribution system, food service, and consumer. Broiler companies, USDA-Extension, and Land Grant Universities have been working cooperatively to educate producers about how to reduce bacteria levels in poultry.

Controls at the production stage include:

- biosecurity—minimizing bird contact with humans and other animals for disease control;

- insect, wild bird, and rodent control;
- control of mold and mycotoxin growth;
- control of litter moisture; and
- increasing the frequency of cleaning and sanitation.

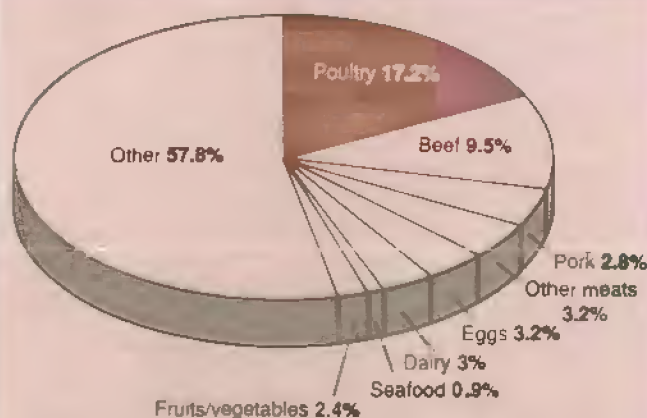
Most producers are adopting these procedures. Biosecurity and the control of insects, wild birds, and rodents are ongoing battles to keep programs effective. Increased cleaning and moisture control have necessitated installation of new watering systems in many cases. Mold growth control has been difficult because of loss of registration for one of the most effective anti-fungal feed additives.

Feed is another source of bacterial contamination, and tests have found that it frequently contains bacteria that are prevalent in birds at slaughter. However, it is possible to reduce bacterial levels in feed, at increased cost, according to research at the University of Georgia's Agricultural Experiment Station.

Various processes and costs to implement feed control are being studied. Early results indicate the following.

- Extended pelleting time increases the temperature the feed ultimately reaches, and reduces bacteria levels, at a cost of 0.2 cents per pound of broiler meat.
- Addition of an edible acid to the feed prevents recontamination and lowers microbe levels, at a cost of 1.6 cents per pound of broiler meat.

About a Sixth of Foodborne Salmonellosis Cases Were Traced to Poultry



Known sources of reported cases, 1973-91. Excludes 1985 milk outbreak in Chicago. Other includes combinations of foods.

Source: Centers for Disease Control and Prevention.

- Eliminating rendered animal by-product ingredients from the ration increases feeding cost by 0.56 cents per pound of broiler meat. Elimination, however, raises a waste disposal issue for meat processors.
- Irradiation of feed was considered but determined to be too expensive.

Another option to reduce bacteria in poultry is competitive exclusion, which is under study by USDA's Georgia Agricultural Research Station. This process treats chicks with pathogen-free flora (PFF) so that beneficial bacteria establish themselves in the chicks' digestive tracts and exclude the introduction of pathogens. In a field trial, chicks and unhatched eggs were sprayed with PFF the night before removal from hatching trays and were provided with PFF in their first drinking water the next day.

Results showed that after processing, grown broilers in the trial had one-fourth the number of *Salmonella*-positive carcasses in the control group of birds. The cost of the PFF product was estimated at 1-2 cents per bird, or 0.3 to 0.6 cents per pound of chicken meat.

At the processing level, the National Broiler Council sponsored a study, in cooperation with the Food Safety Consortium (headquartered at the University of Arkansas) with oversight by USDA's Food Safety and Inspection Service (FSIS), to test ways to reduce broiler carcass bacteria levels. Five changes were implemented at each of five slaughter plants. The changes included installation of a multitank counterflow scalding, a bird washer at the exit of the scalding, and addition of chlorine rinse at three other stages.

These steps reduced the number of carcasses testing positive for *Salmonella* by 70 percent in one plant and reduced the number of organisms present in all five plants (71 percent fewer *Campylobacter* were found). The total aerobic plate count showed a 60-percent reduction in organism numbers. An average of 41 percent of all birds were *Salmonella* positive for the control group. This rate was reduced to 25 percent after plant and process modification.

The majority of poultry processors have adopted all of the processing changes except the counterflow scalding. Because of the additional space requirements and the high cost of replacing existing scalders, less than half of the plants have installed counterflow scalders.

An additional treatment approved for use and being field-tested is a tri-sodium phosphate rinse. An early report shows a reduction of *Salmonella* incidence from 40 percent of carcasses to 1 percent, and a reduction in *E. Coli*. The cost of treatment is estimated at a penny per bird, or 0.3 cents per pound of broiler meat, which is about 1 percent of production costs.

Special Articles

Salmonella Initiatives

During the 1960's, U.S. *Salmonella* poisonings were often associated with shell eggs. As with the present *Se* situation, many of the outbreaks were in institutional food kitchens. Soon after passage of the Egg Products Inspection Act of 1970 (EPIA), these outbreaks ended, and in 1972, eggs were removed from the hazardous food list.

The EPIA had two major effects on egg marketing. First, it required continuous inspection of all egg-breaking plants and the pasteurization of all their products. Second, the EPIA also provides for at least quarterly inspection of shell-egg packing plants to control the disposition of certain types of loss and undergrade eggs. Only 10-percent checks (eggs with cracked shells) were allowed in consumer packs, and very low tolerances were set for other undergrade eggs.

In Sweden, processors produce *Salmonella*-free poultry through a variety of controls in each segment of the broiler industry, including heat treatment of chicken feed, strict sanitary controls on poultry farms, and testing of breeding stock and grown chickens prior to shipment to the slaughterhouse. If any chickens test positive for *Salmonella*, the entire stock or flock is condemned. These procedures are encouraged by industry groups in the U.S. as voluntary programs, but have not been fully adopted by all firms. Sweden also has surveillance programs to determine the food source of infection in patients hospitalized with salmonellosis.

Egg Producers Tackle New Problems

Since the mid-1980's, food poisonings attributed to use of Grade A shell eggs infected with *Se* have been steadily increasing in incidence and geographic scope. The New England region was affected first, followed by the Middle Atlantic states. In 1993, CDC reports several *Se* foodborne disease outbreaks in California. These infections are now the most common form of salmonellosis in some parts of the country.

Grade A shell eggs had not been a concern for food poisonings since the Egg Product Inspection Act of 1970 was implemented. In 1972, the Food and Drug Administration (FDA) removed eggs from its hazardous food list. However, 18 years later, eggs rejoined meat and milk on the list of perishable foods that require refrigeration throughout the food distribution system.

The egg industry has been approaching this problem at all levels of production and handling. Most producers in the affected areas have adopted "best management practices," including:

- testing poultry houses for *Se*;
- buying pullets that have been tested for *Se*;
- keeping egg collection equipment clean;
- controlling rodents and insects;
- cleaning up broken eggs daily;
- removing dead birds daily;
- gathering eggs at least twice per day;
- refrigerating eggs immediately after collection; and
- reducing bird stress.

Cleanout between flocks is also very important, and these steps are being recommended:

- removing all animals (chickens, cats, dogs, and rodents);
- thorough dry-cleaning with brushes or pressurized air to reduce water use later;
- washing with clean hot water; and
- using spray and fog disinfectants.

This type of cleanout is estimated to cost between \$4,000 and \$8,000 for an 80,000-bird laying house, or 5-10 cents per bird per year, which is about 1 percent of production costs.

Control of rodents is also emphasized because they are a primary agent of *Se* transmission within a production flock, and a reservoir for infecting a clean flock brought into previously infected houses. Egg producers are also pursuing competitive exclusion procedures and feed treatments similar to those adopted by broiler producers, as safeguards against *Se* infection.

Vaccination is another potential method for controlling *Se* in egg production. Field trials are underway and a few vaccines are available. The viability of vaccination to prevent *Se*-infected eggs from reaching the market is still under question. Most studies find that vaccination reduces the incidence of infection, but testing is difficult, and the prevalence of infected eggs from vaccinated flocks is uncertain.

Poultry & Egg Inspection Reforms Include Salmonella Testing

Several government agencies are responsible for chicken inspection. FSIS operates continuous inspection of chicken slaughter plants whose products are to enter interstate or foreign markets. This inspection is mandated by the poultry act (1957) and strengthened by the Wholesome Poultry Products Act of 1968. The 1968 law requires Federal inspection of poultry sold

within a state if the state inspection system is less stringent than the Federal inspection system.

The inspection jurisdiction for eggs depends on the intended market and the requirements of buyers. USDA has jurisdiction over bird health problems and eggs found to be *Se*-infected. FDA has jurisdiction after eggs leave the packaging plant if the eggs are to be sold across state lines. The state retains jurisdiction over eggs sold within the state where they are packed.

In 1990, USDA instituted two new programs. First, mandatory breeder testing was started in order to eliminate transmission of *Se* through breeders. Second, USDA's Animal and Plant Health Inspection Service (APHIS) *Se* Task Force began operating a traceback program. This program is to enable USDA to identify production flocks involved in human salmonellosis outbreaks.

Once tested *Se*-positive, eggs from the flocks cannot be sold through consumer channels. The producer must either liquidate the flock or divert eggs to a breaking plant for pasteurization. Between February 1990 and March 1992, 3.1 million birds were slaughtered under the program. In addition, 1.2 billion eggs, or 1 percent of total egg production, were diverted for pasteurization.

Egg producers involved in a traceback and required to divert eggs to breaking plants suffer financially. Breaker egg prices average 5-10 cents per dozen (10-20 percent) lower than shell egg prices. Additionally, egg breakers typically discount *Se*-restricted eggs another 5 to 10 cents per dozen from normal breaker egg prices because of the possibility of additional processing needed to lower bacteria numbers to acceptable levels.

A Pennsylvania State University study has shown that diversion of eggs due to the *Se* traceback program has had very little impact on prices that nonrestricted producers received. Price changes of less than 0.1 cent per dozen shell eggs would be expected, and with little market disruption. This is because shortages in the shell-egg market can be averted by rerouting some eggs destined for the breaker market to the shell-egg market, thereby substituting for eggs restricted to the breaker market.

Under the Egg Products Inspection Act of 1970, continuous inspection by USDA is required for all egg-breaking plants. Eggs with cracked shells, and thus at higher risk of bacterial contamination, are required to be processed at these plants.

USDA's Agricultural Marketing Service (AMS) has also proposed requiring that shell eggs be stored at an ambient temperature of 45°F or below after packing, and be transported in refrigerated trucks maintained at a temperature of 45°F or below. FSIS is introducing a Pathogen Reduction Program to reduce the likelihood that harmful micro-organisms—such as *Salmonella*—will enter the food supply at key points in the production, distribution, and consumption chain.

Consumption Patterns Affect Risks

The risks of contracting salmonellosis and campylobacteriosis from eating poultry products and eggs can be reduced at several points before the food is consumed. Government inspection and industry controls during production and processing stages can minimize the prevalence of microbes. Food handlers (consumers and employees of public eating places) are the last defense against foodborne health risks from salmonellosis and campylobacteriosis.

Bacteria in fresh poultry products can multiply quickly at room temperature, and can spread to other foods through cross-contamination via hands, knife, cutting board, or other kitchen utensils. Yet heat can kill bacteria. Therefore, an important step to safeguard against *Salmonella*, *Campylobacter*, and other foodborne illnesses is to avoid undercooked poultry, meat, eggs, and seafood, and to follow principles of safe food handling.

USDA Education Programs

Besides implementing the poultry inspection program, the Federal government carries out extensive educational activities on the principles of safe food handling. The purposes of these efforts are to raise food handlers' awareness of potential foodborne illness problems such as cross-contamination and to influence foodhandler behavior so that the likelihood of illness at home or at public eating places is reduced.

USDA is reaching out directly to current and future food handlers to disseminate information on safe food handling. FSIS maintains a consumer toll-free Meat and Poultry Hotline to answer consumer inquiries about safety of meat, poultry, and egg preparation, and other questions relating to meat and poultry products (1-800-535-4555, 10 a.m. to 4 p.m., EST).

FSIS also prepares, pretests, distributes, and evaluates educational materials for the general public, health professionals, educators, food-service institutions, and Extension service workers about safe handling and cooking of eggs and poultry. In addition, the agency has been involved in educational efforts directed at elementary school children, teenagers, and high-risk groups of consumers.

FSIS works cooperatively with the Extension Service and its nationwide network of county agents, as well as with FDA and the educational community. Consumers having questions about food safety can also call local Extension agents, FDA public affairs officers, and FDA's Seafood Hotline (1-800-332-4010, 12 noon to 4 p.m., EST.)

Special Articles

Poultry consumption in the nation has been increasing steadily in recent years. During the 10-year period between 1982 and 1992, annual per capita consumption of chicken rose from 34 to 46 pounds. Part of the increase is due to a growing health consciousness, and poultry products offer an economical and relatively low-fat source of protein.

A recent consumer survey has shown that people served chicken at home more frequently in 1991 than in 1983. Ninety-five percent of the chicken bought for home consumption consisted of fresh products, such as fresh chicken parts. The predominance of fresh products means consumers need to adhere to safe practices in handling and cooking chickens for home consumption.

The age profile of chicken consumers also suggests food handlers should exercise proper handling and cooking practices. According to a survey reported in the trade journal *The Broiler Industry*, older adult consumers eat chicken at home at the highest rate of all age groups. In addition, school-age children increased their chicken consumption by 8 percent between 1982 and 1991. These two groups are at higher risk of salmonellosis than other consumer groups.

Data prepared by the broiler industry showed that the food-service market accounted for 32.3 percent of the total volume sold in 1991. This volume represented growth of almost 100 percent from 1981. The potential for salmonellosis outbreaks is particularly high at institutional eating places, (e.g., school cafeterias or nursing homes), where high-risk groups of individuals are served chicken products.

Consumption of eggs and egg products has also changed. Americans are eating fewer shell eggs because of concerns about cholesterol level, and more are eating out. Americans consumed 180 shell eggs on average in 1992, in contrast to 237 in 1980. During the same period, consumption of processed egg products (liquid, frozen, or dried) has risen significantly from 36 eggs (shell equivalent) per person in 1980 to 55 in 1992. The increase reflects expanded use of eggs as ingredients in a number of food products (e.g., pasta and pudding). Increased use in fast-food restaurants and other food-service establishments also contributed to higher consumption of processed egg products.

Pasteurized processed egg products are recognized as a safe alternative to shell eggs for immunocompromised individuals and for those who eat food dishes containing raw eggs. In fact, many food-service firms are replacing shell eggs with pasteurized liquefied eggs in their recipes. However, raw shell eggs are still widely used for both home and restaurant cooking. Therefore, sanitary handling and proper cooking remain important measures to reduce the risk of illness from eating *Se*-infected shell eggs.

Handling Labels Are Critical

Seventy-five percent of the National Broiler Council's 50 members use voluntary safety and handling labels on their fresh chicken products. The council also publishes consumer education pamphlets providing guidelines for buying, handling, storing, and cooking chicken products.

The egg industry has made egg safety education a top priority. Activities of the American Egg Board, Egg Nutrition Center, and United Egg Producers include the preparation and distribution of a video that teaches food operators about egg safety. A food safety guide and a technical leaflet on *Salmonella* have also been distributed. In addition, the industry groups have developed recommendations on egg safety and handling for consumers and food-service operators so that consistent messages will be communicated.

The government has also taken steps to promote industry use of safe handling labels on poultry and egg products. FSIS issued a directive in 1987 establishing "safe food handling" label statements that poultry processors may use on product packages. FSIS is finalizing a proposal for rules regulating mandatory safety labeling on poultry product packages. These safety labels will include instructions for cooking and handling. Meanwhile, AMS, in coordination with FDA, has proposed that egg cartons and cases be required to carry a safe handling label indicating that eggs should be refrigerated by users.

[C.-T. Jordan Lin and Tanya Roberts (202) 219-0864, Milton Madison (202) 219-0714] AO

Test your knowledge of American farming

Which of the following statements are true?

True **False**

- ☐ ☐ *Farming is the main activity in rural America.*
- ☐ ☐ *Most of our food comes from small family farms where the farmer is having a tough time making a decent living.*
- ☐ ☐ *America is losing the family farm.*
- ☐ ☐ *Most farmers today are either big corporations controlled by major companies, or poor and fighting to survive.*

If you've seen the ERS video *American Harvest*, your answer on each statement would be *False*.

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Statistical Indicators

Summary Data

Table 1.—Key Statistical Indicators of the Food & Fiber Sector

	1992				1993				
	II	III	IV	Annual	I	II F	III F	IV F	Annual F
Prices received by farmers (1977=100)	141	138	137	140	140	—	—	—	—
Livestock & products	157	159	157	157	162	—	—	—	—
Crops	123	117	117	121	117	—	—	—	—
Prices paid by farmers, (1977=100)									
Production items	174	175	175	174	178	179	—	—	—
Commodities & services, interest, taxes, & wages	191	192	182	191	194	197	—	—	—
Cash receipts (\$ bil.) 1/	172	177	163	169	164	—	—	—	—
Livestock (\$ bil.)	86	85	89	86	86	—	—	—	—
Crops (\$ bil.)	87	92	73	83	78	—	—	—	—
Market basket (1982-84=100)									
Retail cost	138	138	139	138	141	—	—	—	—
Farm value	103	104	104	103	105	—	—	—	—
Spread	157	157	158	157	160	—	—	—	—
Farm value/retail cost (%)	26	26	26	26	26	—	—	—	—
Retail prices (1982-84=100)									
Food	138	138	139	138	140	141	—	—	—
At home	137	137	137	137	139	140	—	—	—
Away from home	140	141	142	141	142	144	—	—	—
Agricultural exports (\$ bil.) 2/	10.1	9.7	11.8	42.4	11.8	10.3	8.8	11.6	42.5
Agricultural imports (\$ bil.) 2/	6.2	8.2	6.1	24.3	6.4	6.5	8.0	6.3	24.5
Commercial production									
Red meat (mil. lb.)	9,915	10,408	10,379	40,795	9,716	9,971	10,502	10,858	40,847
Poultry (mil. lb.)	6,624	6,816	6,644	26,398	6,541	6,925	7,100	6,875	27,441
Eggs (mil. doz.)	1,454	1,484	1,501	5,883	1,459	1,465	1,480	1,510	5,914
Milk (bil. lb.)	39.1	37.5	37.2	151.7	37.8	39.3	37.0	37.1	151.3
Consumption, per capita									
Red meat and poultry (lb.)	51.3	52.7	53.7	208.5	50.5	51.4	53.2	54.4	209.8
Corn beginning stocks (mil. bu.) 3/	6,541.1	4,561.0	2,738.6	—	1,100.3	7,906.4	5,678.6	—	—
Corn use (mil. bu.) 3/	1,984.5	1,827.8	1,641.6	7,916.1	2,674.1	2,228.8	—	—	8,470.0
Prices 4/									
Choice steers—Neb. Direct (\$/cwt)	75.94	73.86	75.86	75.36	80.65	79-80	70-76	71-77	75-79
Barrows & gilts—IA, So. MN (\$/cwt)	45.70	44.39	42.48	43.03	44.92	47-48	43-49	39-45	43-47
Broilers—12-city (cts./lb.)	52.3	54.5	53.3	52.6	53.1	56-57	52-58	49-55	52-56
Eggs—NY gr. A large (cts./doz.)	62.0	64.5	71.4	65.4	75.6	73-74	71-77	72-78	73-77
Milk—alt at plant (\$/cwt)	12.87	13.47	13.10	13.09	12.33	12.65-13.25	13.05-14.05	12.30-13.3	12.55-13.25
Wheat—KC HRW ordinary (\$/bu.)	3.94	3.45	3.73	3.81	3.82	—	—	—	—
Corn—Chicago (\$/bu.)	2.59	2.26	2.12	2.41	2.18	—	—	—	—
Soybeans—Chicago (\$/bu.)	5.93	5.51	5.52	5.68	5.63	—	—	—	—
Cotton—Avg. spot 41-34 (cts./lb.)	56.4	57.3	50.4	53.9	55.18	—	—	—	—
	1985	1986	1987	1988	1989	1990	1991	1992	1993 F
Farm real estate values 5/									
Nominal (\$ per acre)	713	640	599	632	661	668	681	684	700
Real (1982 \$)	657	588	518	530	533	517	505	487	486

1/ Quarterly data seasonally adjusted at annual rates. 2/ Annual data based on Oct.-Sept. fiscal years ending with year indicated. 3/ Sept.-Nov. first quarter; Dec.-Feb. second quarter; Mar.-May third quarter; Jun.-Aug. fourth quarter; Sept.-Aug. annual. Use includes exports & domestic disappearance. 4/ Simple averages, Jan.-Dec. 5/ 1990-92 values as of January 1. 1986-89 values as of February 1. 1984-85 values as of April 1. F = forecast, — = not available.

U.S. & Foreign Economic Data

Table 2.—U.S. Gross Domestic Product & Related Data

	Annual			1992				1993
	1990	1991	1992	I	II	III	IV	I R
\$ billion (quarterly data seasonally adjusted at annual rates)								
Gross domestic product	5,522.2	5,677.5	5,950.7	5,840.2	5,902.2	5,978.5	6,081.8	6,148.0
Gross national product	5,542.9	5,694.9	5,961.9	5,859.8	5,909.3	5,992.0	6,086.8	6,188.1
Personal consumption expenditures	3,748.4	3,887.7	4,095.8	4,022.8	4,057.1	4,108.7	4,194.8	4,238.6
Durable goods	464.3	446.1	480.4	469.4	470.6	482.5	499.1	500.6
Nondurable goods	1,224.5	1,251.5	1,290.7	1,274.1	1,277.5	1,292.8	1,318.6	1,321.8
Clothing & shoes	206.9	209.0	221.8	216.5	217.4	224.3	229.0	226.0
Food & beverages	601.4	617.7	630.9	627.9	623.2	627.3	645.2	645.1
Services	2,059.7	2,190.1	2,324.7	2,279.3	2,309.0	2,333.3	2,377.1	2,416.3
Gross private domestic investment	799.5	721.1	770.4	722.4	773.2	781.6	804.3	844.1
Fixed investment	793.2	731.3	766.0	738.2	765.1	766.6	794.0	805.1
Change in business inventories	6.3	-10.2	4.4	-15.9	8.1	15.0	10.3	39.0
Net exports of goods & services	-68.9	-21.8	-30.4	-8.1	-37.1	-36.0	-40.5	-50.9
Government purchases of goods & services	1,043.2	1,090.5	1,114.9	1,103.1	1,109.1	1,124.2	1,123.3	1,116.1
1987 \$ billion (quarterly data seasonally adjusted at annual rates)								
Gross domestic product	4,877.5	4,821.0	4,922.8	4,873.7	4,892.4	4,933.7	4,990.8	5,002.5
Gross national product	4,895.9	4,838.4	4,932.8	4,890.7	4,899.1	4,945.6	4,995.9	5,019.6
Personal consumption expenditures	3,260.4	3,240.8	3,314.0	3,289.3	3,288.5	3,318.4	3,359.9	3,369.9
Durable goods	439.3	414.7	439.1	432.3	430.0	439.8	454.4	455.1
Nondurable goods	1,056.5	1,042.4	1,054.1	1,049.6	1,045.6	1,052.0	1,069.4	1,063.0
Clothing & shoes	185.9	181.3	188.3	184.1	184.4	190.8	193.7	188.6
Food & beverages	520.8	515.8	518.4	518.9	513.5	514.3	526.7	523.5
Services	1,764.6	1,783.7	1,820.7	1,807.3	1,812.9	1,826.6	1,836.2	1,851.8
Gross private domestic investment	739.1	661.1	712.6	668.9	713.6	724.9	743.1	784.3
Fixed investment	732.9	670.4	707.6	681.4	705.9	710.0	733.3	747.6
Change in business inventories	6.2	-9.3	5.0	-12.6	7.9	15.0	9.8	36.9
Net exports of goods & services	-51.8	-21.8	-41.8	-21.5	-43.9	-52.7	-49.0	-71.1
Government purchases of goods & services	929.9	941.0	937.8	937.0	934.2	943.0	936.8	919.3
GDP implicit price deflator (% change)	4.3	4.1	2.6	3.1	2.7	2.0	2.3	3.3
Disposable personal income (\$ bil.)	4,042.9	4,209.6	4,430.8	4,360.9	4,411.8	4,433.2	4,517.3	4,581.4
Disposable per. income (1987 \$ bil.)	3,516.5	3,509.0	3,585.1	3,585.7	3,576.0	3,580.5	3,618.2	3,642.4
Per capita disposable per. income (\$)	16,174	16,658	17,346	17,143	17,297	17,332	17,610	17,817
Per capita dis. per. income (1987 \$)	14,068	13,886	14,035	14,017	14,021	13,998	14,105	14,165
U.S. population, total, incl. military abroad (mil.) *	249.9	252.7	255.5	254.3	256.0	255.7	256.5	257.1
Civilian population (mil.) *	247.8	250.6	253.5	252.3	253.0	253.8	254.6	255.3
	Annual			1992				1993
	1990	1991	1992	Apr	Jan	Feb	Mar	Apr
Monthly data seasonally adjusted								
Industrial production (1987=100)	106.1	104.1	106.6	106.3	109.3	109.9	109.9	110.0
Leading economic indicators (1982=100)	143.8	143.4	148.9	148.3	152.7	153.5	151.9	152.0
Civilian employment (mil. persons)	117.9	116.9	117.6	117.5	118.1	118.5	118.6	118.4
Civilian unemployment rate (%)	5.5	6.7	7.4	7.3	7.1	7.0	7.0	7.0
Personal income (\$ bil. annual rate)	4,664.2	4,828.3	5,058.1	5,015.4	5,223.1	5,228.7	5,261.0	5,262.0
Money stock—M2 (daily avg.) (\$ bil.) 1/	3,345.5	3,445.8	3,497.0	3,464.8	3,487.0	3,475.2	3,472.7	3,473.3
Three-month Treasury bill rate (%)	7.51	5.42	3.45	3.81	3.06	2.95	2.97	2.89
AAA corporate bond yield (Moody's) (%)	9.32	8.77	8.14	8.33	7.91	7.71	7.58	7.46
Housing starts (1,000) 2/	1,193	1,014	1,200	1,095	1,171	1,180	1,137	1,213
Auto sales at retail, total (mil.)	9.5	8.4	8.4	8.2	8.6	8.0	8.3	8.9
Business inventory/sales ratio	1.53	1.55	1.51	1.51	1.46	1.46	1.47	—
Sales of all retail stores (\$ bil.) 3/	1,849.8	1,865.5	1,982.4	160.2	169.2	169.1	167.7	169.7
Nondurable goods stores (\$ bil.)	1,179.8	1,211.6	1,257.3	103.1	107.0	108.1	106.9	107.6
Food stores (\$ bil.)	369.8	376.9	384.0	31.8	32.5	32.9	32.3	32.4
Eating & drinking places (\$ bil.)	191.0	198.9	201.9	16.5	17.3	17.2	17.3	17.3
Apparel & accessory stores (\$ bil.)	95.8	97.5	105.0	9.4	9.1	8.9	6.5	8.8

1/ Annual data as of December of the year listed. 2/ Private, including farm. 3/ Annual total. R = revised. — = not available.

Note: * Population estimates based on 1990 census.

Information contact: Ann Duncan (202) 219-0313.

Table 3.—Foreign Economic Growth, Inflation, & Exports

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992 E	1993 F	1994 F	Average 1982-91
Annual percent change													
World, less U.S.													
Real GDP	2.4	3.6	3.4	3.0	3.5	4.4	3.5	3.0	1.1	1.1	1.2	2.8	2.9
GDP deflator	8.8	8.2	8.8	7.8	9.0	10.6	10.8	23.8	16.1	49.8	38.5	27.8	11.3
Real exports	2.7	9.7	3.8	2.1	5.0	7.0	7.3	5.9	3.7	2.7	3.0	4.8	4.8
Developed less U.S.													
Real GDP	2.1	3.2	3.4	2.7	3.2	4.5	3.8	3.5	1.4	1.1	0.5	2.3	2.9
GDP deflator	8.6	5.2	4.6	4.3	2.9	3.3	4.1	3.2	3.4	4.4	2.6	2.7	4.5
Real exports	3.5	10.8	5.2	-0.2	2.9	6.2	7.0	6.9	4.8	2.7	2.3	4.6	4.9
Eastern Europe & F.S.U.													
Real GDP	3.8	4.0	2.3	3.6	2.6	3.9	1.5	-3.1	-13.3	-13.5	-7.5	-3.1	0.7
GDP deflator 1/	4.2	6.0	8.4	8.1	12.8	35.3	41.3	192.3	88.9	204.8	89.5	60.6	38.6
Real exports	4.8	6.2	-4.0	9.1	7.6	8.6	-5.3	-6.9	-22.1	-12.0	-2.3	1.8	0.4
Developing													
Real GDP	3.1	4.7	4.0	3.9	4.5	4.4	3.6	3.2	3.7	4.3	4.9	5.0	3.7
GDP deflator	38.7	37.3	35.4	25.5	33.1	26.4	19.2	18.9	14.4	14.9	15.2	14.0	27.6
Real exports	0.4	7.2	1.7	7.6	11.1	9.4	9.0	5.6	5.9	5.1	6.9	6.1	5.8
Asia													
Real GDP	8.2	7.9	5.9	7.2	8.8	9.1	5.5	5.7	5.0	6.7	6.4	6.3	6.8
GDP deflator	6.3	7.5	5.9	4.4	7.8	8.2	6.1	8.4	7.6	7.9	8.9	7.9	6.6
Real exports	8.4	11.3	2.9	19.0	15.8	14.9	8.2	7.3	9.2	7.5	9.5	9.0	9.8
Latin America													
Real GDP	-2.7	3.7	3.6	4.4	3.0	0.0	1.3	-1.3	2.6	1.3	3.0	3.7	1.3
GDP deflator 1/	30.3	40.8	69.0	62.8	125.5	68.5	35.9	29.6	22.7	24.0	20.8	18.5	49.9
Real exports	2.0	12.0	2.0	0.0	8.0	6.8	10.4	3.9	3.1	4.9	4.3	5.0	5.1
Africa													
Real GDP	1.1	2.2	2.3	1.4	0.8	2.9	2.8	0.9	2.2	1.2	2.8	3.4	1.9
GDP deflator	17.0	13.1	12.2	8.5	25.7	17.4	19.6	15.0	18.0	13.7	18.2	17.8	15.6
Real exports	-5.3	-1.5	3.5	-1.0	0.0	2.9	5.0	8.1	4.5	1.3	1.1	2.6	0.8
Middle East													
Real GDP	4.5	1.2	1.7	-3.6	-0.1	-0.2	2.5	5.8	2.9	4.9	4.8	4.2	1.7
GDP deflator	-4.5	1.2	3.1	5.7	14.6	9.5	13.5	20.4	2.7	9.6	12.8	11.6	6.3
Real exports	-19.6	-6.7	-7.1	-3.8	24.8	4.8	21.0	6.0	19.1	13.3	4.7	13.4	4.1

1/ Excludes Yugoslavia, Argentina, Brazil, & Peru starting in 1989. E = estimate. F = forecast.

Information contact: Alberto Jerardo, (202) 218-0705.

Farm Prices

Table 4.—Indexes of Prices Received & Paid by Farmers, U.S. Average

	Annual			1992		1993					
	1990	1991	1992 P	May	Dec	Jan	Feb	Mar	Apr R	May P	
1977 = 100											
Prices received											
All farm products	149	145	139	141	137	139	140	142	146	148	
All crops	127	129	121	123	118	117	118	118	126	122	
Food grains	127	129	121	123	118	117	118	118	126	122	
Feed grains & hay	123	118	115	125	104	107	108	110	113	113	
Feed grains	118	115	114	124	99	102	101	105	107	106	
Cotton	107	108	87	88	90	87	88	92	90	89	
Tobacco	152	161	155	145	163	161	167	167	141	141	
Oil-bearing crops	94	91	85	89	88	89	89	90	91	92	
Fruit, all	186	262	183	198	162	146	136	118	133	142	
Fresh market 1/	196	285	186	207	161	142	130	109	127	138	
Commercial vegetables	142	135	151	123	168	165	177	154	241	198	
Fresh market	144	140	157	118	176	174	195	163	278	215	
Potatoes & dry beans	189	141	126	111	129	133	135	158	176	190	
Livestock & products	170	161	157	158	158	159	162	166	167	168	
Meat animals	193	186	178	180	174	181	187	192	191	193	
Dairy products	141	126	135	133	132	129	127	128	130	133	
Poultry & eggs	131	124	117	113	124	122	121	130	131	130	
Prices paid											
Commodities & services											
Interest, taxes, & wage rates	184	189	191	191	192	194	194	194	197	197	
Production items	171	174	174	174	175	176	176	178	179	179	
Feed	128	123	123	—	—	122	—	—	124	—	
Feeder livestock	213	214	202	—	—	216	—	—	221	—	
Seed	185	183	162	—	—	162	—	—	169	—	
Fertilizer	131	134	131	—	—	128	—	—	129	—	
Agricultural chemicals	139	151	159	—	—	161	—	—	166	—	
Fuels & energy	204	203	199	—	—	198	—	—	199	—	
Farm & motor supplies	154	154	180	—	—	161	—	—	169	—	
Auto & trucks	231	244	258	—	—	265	—	—	272	—	
Tractors & self-propelled machinery	202	211	219	—	—	224	—	—	223	—	
Other machinery	218	228	233	—	—	235	—	—	245	—	
Building & fencing	143	146	150	—	—	152	—	—	162	—	
Farm services & cash rent	166	170	172	—	—	172	—	—	172	—	
Int. payable per acre on farm real estate debt	177	172	167	—	—	184	—	—	184	—	
Taxes payable per acre on farm real estate	158	180	171	—	—	178	—	—	178	—	
Wage rates (seasonally adjusted)	193	201	210	—	—	217	—	—	217	—	
Production items, interest, taxes, & wage rates	172	175	176	—	—	178	—	—	181	—	
Ratio, prices received to prices paid (%) 2/	81	77	73	74	71	72	73	73	74	74	
Prices received (1910-14=100)	681	665	636	644	628	634	640	647	669	665	
Prices paid, etc. (parity index) (1910-14=100)	1,267	1,298	1,317	—	—	1,337	—	—	1,355	—	
Parity ratio (1910-14=100) (%) 2/	54	51	48	—	47	47	—	—	49	—	

1/ Fresh market for noncitrus; fresh market & processing for citrus. 2/ Ratio of index of prices received for all farm products to index of prices paid for commodities & services, interest, taxes, & wage rates. Ratio uses the most recent prices paid index. Prices paid data are quarterly & will be published in January, April, July, & October. R = revised. P = preliminary. — = not available.

Information contact: Ann Duncan (202) 218-0313.

Table 5.—Prices Received by Farmers, U.S. Average

	Annual 1/			1992		1993				
	1990	1991	1992 P	May	Dec	Jan	Feb	Mar	Apr R	May P
CROPS										
All wheat (\$/bu.)	2.61	3.00	3.30	3.64	3.31	3.37	3.33	3.30	3.25	3.05
Rice, rough (\$/cwt)	6.70	7.58	6.10	7.18	6.39	6.36	6.06	5.84	5.52	5.25
Corn (\$/bu.)	2.28	2.37	2.05	2.49	1.98	2.03	2.00	2.10	2.16	2.15
Sorghum (\$/cwt)	3.79	4.02	3.39	4.31	3.27	3.38	3.32	3.38	3.38	3.39
All hay, baled (\$/ton)	80.60	71.00	74.00	74.70	73.80	75.10	77.70	78.90	83.80	86.30
Soybeans (\$/bu.)	5.74	5.60	5.40	5.87	5.46	5.58	5.56	5.65	5.73	5.79
Cotton, upland (cts./lb.)	68.2	58.3	--	53.2	54.2	52.7	52.9	55.5	54.3	53.6
Potatoes (\$/cwt)	6.08	4.96	5.28	4.43	5.01	5.24	5.25	6.41	7.47	8.29
Lettuce (\$/cwt) 2/	11.50	11.40	12.40	11.20	16.90	10.90	19.00	14.70	37.50	13.50
Tomatoes fresh (\$/cwt) 2/	27.40	31.80	36.20	16.70	39.50	38.30	21.80	21.20	45.20	63.10
Onions (\$/cwt)	10.50	12.50	12.80	12.40	15.20	17.00	14.10	17.00	31.70	28.00
Dry edible beans (\$/cwt)	18.50	15.60	21.00	16.30	21.50	21.10	20.80	20.10	18.10	17.60
Apples for fresh use (cts./lb.)	20.9	25.0	--	24.9	20.0	19.2	17.8	15.2	14.7	15.3
Pears for fresh use (\$/ton)	360.00	385.00	399.00	459.00	380.00	362.00	393.00	399.00	429.00	478.00
Oranges, all uses (\$/box) 3/	6.16	6.78	5.83	6.48	2.90	2.66	2.39	2.11	3.23	3.85
Grapefruit, all uses (\$/box) 3/	5.86	5.48	6.16	4.58	4.66	3.00	2.42	1.48	2.13	1.62
LIVESTOCK										
Beef cattle (\$/cwt)	74.80	72.90	71.50	71.90	70.80	74.20	75.80	77.30	77.40	77.70
Calves (\$/cwt)	96.50	99.90	89.60	89.60	87.00	93.20	95.90	98.20	99.80	101.00
Hogs (\$/cwt)	54.00	48.80	41.80	45.10	41.80	41.40	44.20	46.80	45.50	46.80
Lambs (\$/cwt)	56.00	52.50	60.70	68.80	65.20	67.00	72.70	76.30	68.50	63.80
All milk, sold to plants (\$/cwt)	13.70	12.20	13.10	12.80	12.80	12.50	12.30	12.20	12.60	12.90
Milk, manuf. grade (\$/cwt)	12.34	11.05	11.88	12.00	11.50	11.10	10.90	11.10	12.00	12.20
Broilers (cts./lb.)	32.4	31.0	31.7	32.6	31.3	31.5	31.8	32.4	33.2	35.7
Eggs (cts./doz.) 4/	70.4	66.2	56.4	51.3	64.4	63.7	61.5	70.7	69.3	62.9
Turkeys (cts./lb.)	38.4	37.7	37.4	37.7	39.2	35.9	34.8	37.2	37.7	38.4
Wool (cts./lb.) 5/	80.0	55.0	55.0	85.0	48.8	43.3	43.7	45.5	45.5	55.0

1/ Season average price by crop year for crops. Calendar year average of monthly prices for livestock. 2/ Excludes Hawaii. 3/ Equivalent on-tree returns.

4/ Average of all eggs sold by producers including hatching eggs & eggs sold at retail. 5/ Average local market price, excluding incentive payments.

P = preliminary. R = revised. -- = not available.

Information contact: Ann Duncan (202) 219-0313.

Producer & Consumer Prices

Table 6.—Consumer Price Index for All Urban Consumers, U.S. Average (Not Seasonally Adjusted)

	Annual	1992				1993				
	1992	May	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
1982-84=100										
Consumer Price Index, all items	140.3	139.7	141.8	142.0	141.9	142.6	143.1	143.6	144.0	144.2
Consumer Price Index, less food	140.8	140.1	142.4	142.7	142.5	143.1	143.7	144.2	144.6	144.8
All food	137.9	137.4	138.3	138.3	138.7	139.8	139.9	140.1	140.6	141.1
Food away from home	140.7	140.4	141.3	141.5	141.6	142.0	142.2	142.4	142.7	142.9
Food at home	136.8	138.2	137.2	137.0	137.5	139.1	139.1	139.4	140.0	140.7
Meats 1/	130.7	130.3	131.1	131.2	131.1	132.3	132.1	133.1	133.8	134.7
Beef & veal	132.3	132.6	132.6	132.9	132.8	135.1	135.6	136.3	137.6	138.2
Pork	127.8	126.8	128.7	127.9	127.4	127.9	127.2	129.0	128.5	130.5
Poultry	131.4	129.1	133.3	133.6	133.7	134.6	133.1	135.7	135.2	136.6
Fish	151.7	151.6	151.4	151.2	152.0	157.2	157.5	157.8	159.7	154.7
Eggs	108.3	104.2	109.3	113.4	117.7	116.2	115.8	120.3	126.9	114.9
Dairy products 2/	128.5	127.0	130.1	129.4	129.1	129.5	128.8	128.8	128.0	128.0
Fats & oils 3/	129.8	130.4	129.9	128.5	128.4	130.2	130.7	130.2	130.2	129.4
Fresh fruit	184.2	180.0	182.1	181.4	181.8	191.0	187.0	184.4	184.8	188.0
Processed fruit	137.7	140.0	136.4	135.5	134.8	133.3	134.5	132.0	132.1	130.7
Fresh vegetables	157.9	149.6	155.2	158.4	166.1	172.4	171.1	173.7	179.3	189.6
Potatoes	141.5	136.7	143.0	136.0	137.2	139.7	138.9	142.4	152.0	156.0
Processed vegetables	128.8	128.8	129.1	127.7	127.3	129.8	128.9	130.2	130.4	129.9
Cereals & bakery products	151.5	150.7	152.8	152.7	153.3	153.4	154.9	154.6	155.4	156.3
Sugar & sweets	133.1	132.9	133.7	133.0	132.1	133.1	133.3	132.8	133.2	133.4
Beverages, nonalcoholic	114.3	114.5	114.1	112.4	112.3	113.5	115.1	114.8	114.2	115.0
Apparel										
Apparel, commodities less footwear	130.2	131.8	133.7	133.1	129.4	127.3	131.9	135.2	135.9	133.4
Footwear	125.0	126.0	127.1	126.0	125.1	124.4	125.2	126.3	127.1	127.8
Tobacco & smoking products	219.8	220.0	225.6	225.0	228.9	234.6	235.6	236.3	237.3	237.9
Beverages, alcoholic	147.3	147.4	148.2	148.2	148.1	148.7	149.1	149.4	149.7	149.5

1/ Beef, veal, lamb, pork, & processed meat. 2/ Includes butter. 3/ Excludes butter.

Information contact: Ann Duncan (202) 219-0313.

Table 7.—Producer Price Indexes, U.S. Average (Not Seasonally Adjusted)

	Annual			1992			1993			
	1990	1991	1992	Apr	Nov	Dec R	Jan	Feb	Mar	Apr
				1982 = 100						
All commodities	116.3	116.5	117.2	116.3	117.8	117.6	118.0	118.2	118.7	119.2
Finished goods 1/	119.2	121.7	123.2	122.4	124.0	123.8	124.0	124.3	124.6	125.3
All foods 2/	123.2	122.2	120.8	120.5	121.1	122.1	121.3	121.5	122.4	124.2
Consumer foods	124.4	124.1	123.2	122.8	123.4	124.2	123.8	124.0	124.6	126.3
Fresh fruit & melons	118.1	129.9	83.8	85.0	91.3	85.0	79.3	77.7	73.5	73.3
Fresh & dried vegetables	118.1	103.8	115.0	104.1	114.3	134.1	132.1	136.9	132.3	174.0
Dried fruit	106.7	111.8	114.4	114.5	114.8	115.1	116.2	115.7	115.7	115.8
Canned fruit & juice	127.0	129.6	134.5	136.0	130.9	129.8	128.1	128.3	125.8	124.5
Frozen fruit & juice	139.0	116.3	125.8	134.8	116.9	113.1	108.8	106.1	105.3	104.6
Fresh veg. excl. potatoes	107.8	100.2	116.4	99.7	108.2	133.4	126.7	125.8	117.2	178.5
Canned veg. & juices	116.7	112.9	109.6	108.9	109.5	109.8	109.9	110.2	109.3	108.7
Frozen vegetables	118.4	117.6	116.4	116.4	117.5	118.1	118.2	118.2	118.1	118.6
Potatoes	157.3	125.7	118.3	112.5	112.9	108.3	120.2	119.1	131.3	144.0
Eggs for fresh use (1991=100)	3/	3/	78.6	76.0	91.9	89.9	87.1	87.9	99.0	91.9
Bakery products	141.0	146.0	152.5	151.7	154.2	154.5	155.5	155.7	155.4	158.0
Meats	117.0	113.5	106.7	107.4	105.2	108.1	107.9	108.5	110.6	113.0
Beef & veal	116.0	112.2	109.7	111.9	107.7	113.2	113.4	114.0	115.8	117.3
Pork	119.8	113.4	98.5	97.0	97.2	97.9	97.0	97.7	101.0	106.4
Processed poultry	113.6	109.9	109.1	107.3	111.4	109.1	108.3	108.5	109.4	110.0
Fish	147.2	149.5	153.0	168.0	150.7	163.0	146.7	149.8	168.6	160.6
Dairy products	117.2	114.6	118.0	115.4	118.7	117.4	116.2	115.2	114.9	116.9
Processed fruits & vegetables	124.7	119.6	120.8	122.0	118.9	118.4	117.5	117.4	116.4	115.9
Shortening & cooking oil	123.2	116.5	114.9	114.0	116.2	119.0	118.5	116.5	117.9	120.6
Soft drinks	122.3	125.5	125.7	125.0	125.5	125.7	126.7	127.5	127.5	127.4
Consumer finished goods less foods	115.3	118.7	120.8	119.6	121.7	121.1	121.4	121.8	122.1	122.6
Beverages, alcoholic	117.2	123.7	126.1	126.3	125.6	125.7	125.8	125.6	126.3	126.0
Apparel	117.5	119.6	122.2	121.9	123.0	122.9	123.2	123.3	123.3	123.2
Footwear	125.6	128.6	131.9	131.5	132.4	133.3	133.2	133.8	134.1	134.1
Tobacco products	221.4	249.7	275.3	273.7	276.5	285.1	291.9	292.2	292.2	296.0
Intermediate materials 4/	114.5	114.4	114.7	113.8	115.0	114.8	115.3	115.5	115.9	116.2
Materials for food manufacturing	117.9	115.3	113.9	113.6	112.8	113.3	113.2	112.6	113.2	114.6
Flour	103.6	96.8	109.3	112.4	106.6	105.5	109.7	110.0	109.2	110.4
Refined sugar 5/	122.7	121.6	120.0	120.2	119.2	119.0	118.2	118.5	118.3	118.7
Crude vegetable oils	115.8	103.0	97.1	96.4	95.7	101.1	104.0	101.2	102.8	104.1
Crude materials 6/	108.9	101.2	100.3	98.8	101.8	100.9	101.4	101.1	102.6	103.6
Foodstuffs & feedstuffs	113.1	105.5	105.1	105.5	102.8	104.6	105.2	105.6	108.2	110.1
Fruits & vegetables & nuts 7/	117.5	114.7	96.8	92.7	102.0	106.3	103.4	104.8	101.3	118.0
Grains	97.4	92.0	97.3	102.7	86.6	89.2	89.9	88.1	89.3	93.7
Livestock	115.6	107.9	104.7	106.7	101.8	106.3	108.3	110.0	112.6	113.0
Poultry, live	118.8	111.2	112.6	102.8	121.7	108.8	112.0	110.4	116.1	116.5
Fibers, plant & animal	117.8	115.1	89.8	89.0	83.2	87.3	89.5	89.5	94.2	91.5
Fluid milk	100.8	89.5	96.3	91.7	95.4	92.4	91.0	89.1	88.7	90.8
Oilseeds	112.1	106.4	107.5	107.9	104.0	107.1	108.9	106.7	108.3	112.2
Tobacco, leaf	95.8	101.1	101.0	94.4	106.1	106.1	104.8	110.0	108.7	97.6
Sugar, raw cane	119.2	113.7	112.1	112.4	112.8	111.1	109.3	109.5	112.1	113.9

1/ Commodities ready for sale to ultimate consumer. 2/ Includes all raw, intermediate, & processed foods (excludes soft drinks, alcoholic beverages, & manufactured animal feeds). 3/ New index beginning Dec. 1991. 4/ Commodities requiring further processing to become finished goods. 5/ All types & sizes of refined sugar. 6/ Products entering market for the first time that have not been manufactured at that point. 7/ Fresh & dried. R = revised.

Information contact: Ann Duncan (202) 219-0313.

Farm-Retail Price Spreads

Table 8.—Farm-Retail Price Spreads

	Annual			1992			1993			
	1990	1991	1992	Apr	Nov	Dec	Jan	Feb	Mar	Apr
Market basket 1/										
Retail cost (1982-84=100)	133.5	137.4	138.4	139.0	138.9	139.5	141.0	140.6	141.0	141.7
Farm value (1982-84=100)	113.1	106.1	103.4	104.2	103.5	103.6	104.2	104.0	106.2	108.3
Farm-retail spread (1982-84=100)	144.5	154.2	157.3	157.7	158.0	158.9	160.8	160.3	159.7	159.6
Farm value-retail cost (%)	29.7	27.0	26.2	26.3	26.1	26.0	25.9	25.9	26.4	28.8
Meat products										
Retail cost (1982-84=100)	128.5	132.5	130.7	130.2	131.2	131.1	132.3	132.1	133.1	133.8
Farm value (1982-84=100)	116.8	110.0	104.5	105.7	103.5	105.5	107.1	109.5	113.7	115.7
Farm-retail spread (1982-84=100)	140.4	155.6	157.5	155.3	159.8	157.4	158.2	155.3	153.0	152.4
Farm value-retail cost (%)	46.0	42.0	40.5	41.1	40.0	40.8	41.0	42.0	43.3	43.8
Dairy products										
Retail cost (1982-84=100)	126.5	125.1	128.5	127.4	129.4	129.1	129.5	128.6	128.8	128.0
Farm value (1982-84=100)	101.7	90.0	95.9	91.5	95.0	94.5	92.6	90.0	88.4	87.3
Farm-retail spread (1982-84=100)	149.5	157.5	158.6	160.5	161.1	161.0	163.5	164.6	166.1	165.5
Farm value-retail cost (%)	38.5	34.5	35.8	34.5	35.2	35.1	34.3	33.5	32.9	32.7
Poultry										
Retail cost (1982-84=100)	132.5	131.5	131.4	129.2	133.6	133.7	134.6	133.1	135.7	135.2
Farm value (1982-84=100)	107.6	102.5	104.0	97.5	108.8	103.8	102.7	103.0	105.8	108.2
Farm-retail spread (1982-84=100)	161.1	164.9	163.0	165.7	162.1	168.1	171.3	167.7	170.1	166.3
Farm value-retail cost (%)	43.5	41.7	42.4	40.4	43.6	41.8	40.9	41.4	41.7	42.8
Eggs										
Retail cost (1982-84=100)	124.1	121.2	108.3	105.1	113.4	117.7	116.2	115.6	120.3	126.9
Farm value (1982-84=100)	108.0	100.9	77.8	73.7	94.7	95.4	92.6	88.3	105.9	98.1
Farm-retail spread (1982-84=100)	153.2	157.6	163.2	161.5	147.0	157.8	158.6	164.6	148.2	178.6
Farm value-retail cost (%)	55.9	53.5	46.1	45.1	53.7	52.1	51.2	49.1	56.5	49.7
Cereal & bakery products										
Retail cost (1982-84=100)	140.0	145.8	151.5	150.6	152.7	153.3	153.4	154.9	154.6	155.4
Farm value (1982-84=100)	90.5	85.3	94.7	99.0	90.8	91.2	91.6	91.2	90.9	91.2
Farm-retail spread (1982-84=100)	148.9	154.3	159.4	157.8	161.3	162.0	162.0	163.8	163.5	164.4
Farm value-retail cost (%)	7.9	7.2	7.7	8.0	7.3	7.3	7.3	7.2	7.2	7.2
Fresh fruits										
Retail cost (1982-84=100)	174.6	200.1	189.6	192.0	188.3	189.6	199.0	191.6	188.5	188.5
Farm value (1982-84=100)	128.3	174.4	122.5	115.2	122.1	127.1	132.6	132.2	132.2	132.4
Farm-retail spread (1982-84=100)	195.9	211.9	220.8	227.4	218.9	218.4	229.6	219.0	214.5	214.4
Farm value-retail cost (%)	23.2	27.5	20.4	19.0	20.5	21.2	21.0	21.8	22.2	22.2
Fresh vegetables										
Retail costs (1982-84=100)	151.1	154.4	157.9	175.4	158.4	166.1	172.4	171.1	173.7	179.3
Farm value (1982-84=100)	124.4	110.8	120.5	126.5	110.9	126.1	132.6	129.7	129.4	159.3
Farm-retail spread (1982-84=100)	164.9	176.8	177.2	200.5	182.8	186.6	192.9	192.4	196.5	189.6
Farm value-retail cost (%)	28.0	24.4	25.9	24.5	23.8	25.8	26.1	25.7	24.2	30.2
Processed fruits & vegetables										
Retail cost (1982-84=100)	132.7	130.2	133.7	135.0	132.0	131.4	131.6	131.9	131.1	131.2
Farm value (1982-84=100)	144.0	120.6	129.0	133.2	125.9	111.2	110.0	107.6	106.7	105.9
Farm-retail spread (1982-84=100)	129.1	133.2	135.2	135.5	133.9	137.7	138.3	139.5	138.7	139.1
Farm value-retail costs (%)	25.8	22.0	22.9	23.5	22.7	20.1	19.9	19.4	19.4	19.2
Fats & oils										
Retail cost (1982-84=100)	126.3	131.7	129.8	129.6	128.5	128.4	130.2	130.7	130.2	130.2
Farm value (1982-84=100)	107.1	98.0	93.2	91.5	98.4	98.2	102.0	99.7	98.4	101.0
Farm-retail spread (1982-84=100)	133.4	144.2	143.3	143.6	139.6	139.5	140.6	142.1	141.9	141.0
Farm value-retail cost (%)	22.8	20.0	19.3	19.0	20.6	20.6	21.1	20.5	20.3	20.9
	Annual			1992		1993				
	1990	1991	1992	May	Dec	Jan	Feb	Mar	Apr	May
Beef, Choice										
Retail price 2/ (cts./lb.)	281.0	288.3	284.6	285.8	287.3	288.4	292.5	295.5	299.1	304.2
Wholesale value 3/ (cts.)	189.6	182.5	179.8	183.4	184.2	188.5	187.8	191.7	193.5	195.3
Net farm value 4/ (cts.)	168.4	160.2	161.8	164.1	165.1	170.2	172.7	178.7	177.2	176.5
Farm-retail spread (cts.)	112.6	128.1	122.8	121.7	122.2	118.2	119.8	116.8	121.9	128.7
Wholesale-retail 5/ (cts.)	91.4	105.8	105.0	102.4	103.1	99.9	104.7	103.8	105.6	108.9
Farm-wholesale 6/ (cts.)	21.2	22.3	17.8	19.3	19.1	18.3	15.1	13.0	16.3	19.8
Farm value-retail price (%)	60	56	57	57	57	59	59	60	59	58
Pork										
Retail price 2/ (cts./lb.)	212.6	211.9	198.0	196.4	196.3	196.0	193.9	193.9	191.4	194.8
Wholesale value 3/ (cts.)	118.3	108.9	98.9	101.2	98.8	95.0	99.0	102.6	102.3	102.6
Net farm value 4/ (cts.)	87.2	78.4	67.8	73.3	66.6	66.0	70.8	74.6	71.9	74.9
Farm-retail spread (cts.)	125.4	133.5	130.2	123.1	129.7	130.0	123.1	119.3	119.5	119.9
Wholesale-retail 5/ (cts.)	94.3	103.0	99.1	95.2	97.5	101.0	94.9	91.3	89.1	92.2
Farm-wholesale 6/ (cts.)	31.1	30.5	31.1	27.9	32.2	29.0	28.2	28.0	30.4	27.7
Farm value-retail price (%)	41	37	34	37	34	34	37	38	36	38

1/ Retail costs are based on CPI-U of retail prices for domestically produced farm foods, published monthly by BLS. The farm value is the payment for the quantity of farm equivalent to the retail unit, less allowance for byproduct. Farm values are based on prices at first point of sale & may include marketing charges such as grading & packing for some commodities. The farm-retail spread, the difference between the retail price & the farm value, represents charges for assembling, processing, transporting, distributing. 2/ Weighted average price of retail cuts from pork & choice yield grade 3 beef. Prices from BLS. 3/ Value of wholesale (boxed beef) & wholesale cuts (pork) equivalent to 1 lb. of retail cuts adjusted for transportation costs & byproduct values. 4/ Market value to producer for live animal equivalent to 1 lb. of retail cuts, minus value of byproducts. 5/ Charges for retailing & other marketing services such as wholesaling, & in-city transportation. 6/ Charges for livestock marketing, processing, & transportation.

Information contacts: Denis Dunham (202) 219-0870, Larry Dwyer (202) 219-0712.

Table 9.—Price Indexes of Food Marketing Costs

(See the June 1993 issue.)

Information contact: Denis Dunham (202) 219-0870.

Livestock & Products

Table 10.—U.S. Meat Supply & Use

	Beg. stocks	Produc- tion 1/	Imports	Total supply	Exports	Ending stocks	Consumption		Primary market price 3/
							Total	Per capita 2/	
	Million pounds 4/						Pounds		
Beef									
1990	335	22,743	2,358	25,434	1,008	397	24,031	67.8	78.55
1991	397	22,917	2,408	25,720	1,188	419	24,113	68.8	74.28
1992	419	23,086	2,440	25,945	1,324	360	24,261	68.5	75.38
1993 F	360	23,028	2,335	25,721	1,300	350	24,071	65.3	75-79
Pork									
1990	313	15,354	698	16,565	238	296	16,031	49.6	55.32
1991	296	15,999	775	17,070	283	388	16,399	50.4	49.69
1992	368	17,234	645	18,267	407	385	17,475	53.1	43.03
1993 F	385	17,381	676	18,441	425	375	17,641	53.0	43-47
Veal 5/									
1990	4	327	0	331	0	6	325	1.1	96.51
1991	6	306	0	312	0	7	305	1.0	99.94
1992	7	310	0	317	0	5	312	1.0	89.38
1993 F	5	286	0	291	0	4	287	0.9	90-94
Lamb & mutton									
1990	8	363	59	430	8	8	415	1.5	55.54
1991	8	363	60	431	8	8	415	1.5	53.21
1992	6	348	66	420	8	8	404	1.4	61.00
1993 F	8	337	65	410	8	9	393	1.4	62-66
Total red meat 2/									
1990	660	38,787	3,313	42,760	1,250	707	40,802	120.1	—
1991	707	39,585	3,241	43,533	1,481	820	41,232	119.6	—
1992	820	40,978	3,151	44,849	1,739	758	42,452	122.0	—
1993 F	758	41,030	3,075	44,863	1,733	738	42,392	120.6	—
Broilers									
1990	38	18,430	0	18,468	1,143	28	17,299	61.0	54.8
1991	26	19,591	0	19,617	1,261	36	18,320	63.7	52.0
1992	36	20,907	0	20,943	1,489	33	19,421	66.8	52.8
1993 F	33	21,882	0	21,915	1,610	33	20,272	69.0	52-56
Mature chicken									
1990	189	523	0	713	25	224	464	1.9	—
1991	224	508	0	732	26	274	429	1.7	—
1992	274	519	0	793	41	345	407	1.6	—
1993 F	345	509	0	854	46	330	478	1.9	—
Turkeys									
1990	236	4,514	0	4,750	54	306	4,390	17.6	63.2
1991	306	4,603	0	4,909	103	264	4,541	18.0	61.3
1992	264	4,778	0	5,042	171	272	4,599	18.0	59.9
1993 F	272	4,847	0	5,119	187	260	4,672	18.1	58-62
Total poultry 2/									
1990	463	23,468	0	23,931	1,222	557	22,152	80.5	—
1991	557	24,701	0	25,258	1,392	575	23,291	83.4	—
1992	575	26,203	0	26,778	1,701	650	24,428	86.4	—
1993 F	650	27,238	0	27,888	1,843	623	25,422	89.0	—
Red meat & poultry									
1990	1,123	62,255	3,313	66,691	2,473	1,264	62,955	200.5	—
1991	1,264	64,286	3,241	68,791	2,673	1,395	64,523	203.0	—
1992	1,395	67,181	3,151	71,727	3,440	1,408	66,860	208.5	—
1993 F	1,408	68,268	3,075	72,751	3,578	1,361	67,814	209.6	—

1/ Total including farm production for red meats & federally inspected plus nonfederally inspected for poultry. 2/ Retail weight basis. (The beef carcass-to-retail conversion factor was 70.5). 3/ Dollars per cwt for red meat; cents per pound for poultry. Beef: Medium # 1, Nebraska Direct 1,100-1,300 lb.; pork: barrows & gilts, Iowa, Southern Minnesota; veal: farm price of calves; lamb & mutton: Choice slaughter lambs, San Angelo; broilers: wholesale 12-city average; turkeys: wholesale NY 8-16 lb. young hens. 4/ Carcass weight for red meats & certified ready-to-cook for poultry. 5/ Beginning 1989 veal trade no longer reported separately. F = forecast. — = not available.

Information contacts: Polly Cochran or Maxine Davis (202) 219-0767.

Table 11.—U.S. Egg Supply & Use

	Beg. stocks	Pro- duc- tion	Im- ports	Total supply	Ex- ports	Hatch- ing use	Ending stocks	Consumption		
								Total	Per capita	Wholesale price*
									No.	Cts./doz.
				Million dozen						
1987	10.4	5,868.2	5.6	5,884.2	111.2	599.1	14.4	5,159.5	254.9	61.6
1988	14.4	5,784.2	5.3	5,803.9	141.9	605.9	15.2	5,041.0	246.9	62.1
1989	15.2	5,598.2	25.2	5,638.5	91.6	643.9	10.7	4,692.4	237.3	81.9
1990	10.7	5,665.6	9.1	5,685.3	100.5	678.5	11.6	4,894.7	235.0	82.2
1991	11.6	5,779.3	2.3	5,793.3	154.3	708.1	13.0	4,917.9	233.5	77.5
1992	13.0	5,882.7	4.3	5,899.9	157.0	726.6	13.5	5,002.8	235.0	65.4
1993 F	13.5	5,913.5	4.0	5,931.0	158.0	752.3	12.0	5,008.7	232.9	73-78

* Cartoned grade A large eggs, New York. F = forecast.

Information contact: Maxine Davis (202) 219-0767.

Table 12.—U.S. Milk Supply & Use^{1/}

Production	Farm use	Commercial				Total commercial supply	CCC net removals	Commercial		All milk price 1/	CCC net removals		
		Farm market-lings	Beg. stock	Imports	Ending stocks			Disappearance	Skim solids basis		Total solids basis 2/		
		Billion pounds (milkfat basis)							\$/cwt		Billion pounds		
1985	143.0	2.5	140.6	4.8	2.8	148.2	13.3	4.5	130.4	12.76	17.2	15.6	
1986	143.1	2.4	140.7	4.5	2.7	147.9	10.8	4.1	133.0	12.51	14.3	12.9	
1987	142.7	2.3	140.5	4.1	2.5	147.1	6.8	4.6	135.7	12.54	9.3	8.3	
1988	145.2	2.2	142.9	4.6	2.4	149.9	9.1	4.3	136.5	12.26	5.5	6.9	
1989	144.2	2.1	142.2	4.3	2.5	149.0	9.4	4.1	135.4	13.56	0.4	34.0	
1990	148.3	2.0	146.3	4.1	2.7	153.1	9.0	5.1	138.9	13.68	1.6	4.8	
1991	148.5	2.0	146.5	5.1	2.6	154.3	10.4	4.6	139.4	12.24	3.9	6.5	
1992	151.7	2.0	149.7	4.5	2.5	156.7	10.0	4.7	142.0	13.10	2.4	5.4	
1993 F	151.3	2.0	149.3	4.7	2.6	156.5	7.4	4.5	144.7	12.90	3.0	4.8	

^{1/} Delivered to plants & dealers; does not reflect deductions. ^{2/} Arbitrarily weighted average of milkfat basis (40 percent) & skim solids basis (60 percent). F = forecast.

Information contact: Jim Miller (202) 219-0770.

Table 13.—Poultry & Eggs

	Annual			1992			1993			
	1990	1991	1992	Apr	Nov	Dec	Jan	Feb	Mar	Apr
Broilers										
Federally inspected slaughter, certified (mil. lb.)	18,555.0	19,727.7	21,052.4	1,729.7	1,595.0	1,817.8	1,802.8	1,659.6	1,897.1	1,863.1
Wholesale price, 12-city (cts./lb.)	54.8	52.0	52.6	49.5	55.0	51.2	52.1	53.0	54.0	54.7
Price of grower feed (\$/ton)	218	208	208	212	202	202	206	205	209	208
Broiler-feed price ratio 1/	3.0	3.0	3.1	2.8	3.3	3.1	3.1	3.1	3.1	3.2
Stocks beginning of period (mil. lb.)	38.3	26.1	38.1	31.8	28.8	29.0	32.8	31.6	32.7	29.0
Broiler-type chicks hatched (mil.) 2/	6,324.4	6,616.5	6,830.9	573.5	526.4	588.3	587.9	536.4	611.9	590.4
Turkeys										
Federally inspected slaughter, certified (mil. lb.)	4,580.7	4,651.9	4,828.9	385.2	423.0	393.1	354.1	322.3	382.9	391.7
Wholesale price, Eastern U.S., 8-16 lb. young hens (cts./lb.)	63.2	61.2	60.2	60.0	65.8	65.1	58.1	56.8	58.4	59.0
Price of turkey grower feed (\$/ton)	238	230	242	239	248	248	243	240	240	251
Turkey-feed price ratio 1/	3.2	3.3	3.1	3.1	3.2	3.2	3.0	2.9	3.1	3.0
Stocks beginning of period (mil. lb.)	235.9	306.4	264.1	392.3	714.7	320.5	271.7	314.7	359.8	359.2
Poults placed in U.S. (mil.)	304.9	308.1	307.8	27.8	22.1	24.0	24.7	25.3	27.3	27.9
Eggs										
Farm production (mil.)	87,987	69,352	70,592	5,838	5,904	6,099	6,020	5,421	6,061	5,855
Average number of layers (mil.)	270	275	278	278	281	281	282	282	282	282
Rate of lay (eggs per layer on farms)	251.7	252.4	253.9	21.0	21.0	21.7	21.3	19.2	21.5	20.8
Cartoned price, New York, grade A large (cts./doz.) 3/	82.2	77.5	65.4	65.0	75.3	73.8	71.7	69.9	85.2	77.8
Price of laying feed (\$/ton)	200	192	199	200	195	195	198	198	199	201
Egg-feed price ratio 1/	7.0	6.8	6.7	5.5	6.6	6.8	6.4	6.2	7.1	6.9
Stocks, first of month										
Shell (mil. doz.)	0.36	0.45	0.63	0.84	0.51	0.45	0.45	0.38	0.36	0.45
Frozen (mil. doz.)	10.3	11.2	12.3	15	18.5	14.2	13.0	12.7	12.9	11.4
Replacement chicks hatched (mil.)	398	420	388	35.8	26.9	29.5	33.4	33.7	37.3	37.2

^{1/} Pounds of feed equal in value to 1 dozen eggs or 1 lb. of broiler or turkey liveweight. ^{2/} Placement of broiler chicks is currently reported for 15 States only; henceforth, hatch of broiler-type chicks will be used as a substitute. ^{3/} Price of cartoned eggs to volume buyers for delivery to retailers.

Information contact: Maxine Davis (202) 219-0767.

Table 14.—Dairy

	Annual			1992			1993			
	1990	1991	1992	Apr	Nov	Dec	Jan	Feb	Mar	Apr
Milk prices, Minnesota-Wisconsin, 3.5% fat (\$/cwt) 1/	12.21	11.05	11.88	11.46	11.84	11.34	10.89	10.74	11.02	12.15
Wholesale prices										
Butter, grade A Chl. (cts./lb.)	102.1	99.3	82.6	86.3	80.7	78.6	75.2	75.2	75.2	75.25
Am. cheese, Wis. assembly pt. (cwt./lb.)	136.7	124.4	131.9	131.9	129.4	123.2	119.3	118.6	124.3	140.8
Nonfat dry milk (cwt./lb.) 2/	100.6	94.0	107.1	105.9	109.1	109.2	111.0	113.8	113.3	113.9
USDA net removals 3/										
Total milk equiv. (mil. lb.) 4/	9,017.2	10,425.0	10,015.0	1,052.6	343.4	616.1	1,681.5	1,498.6	1,173.6	812.4
Butter (mil. lb.)	400.3	442.8	440.4	46.8	13.3	24.6	75.3	65.6	51.2	35.6
Am. cheese (mil. lb.)	21.5	76.8	16.1	2.2	3.2	0.9	1.9	3.1	2.3	0.2
Nonfat dry milk (mil. lb.)	117.8	269.5	157.3	6.1	10.7	43.8	48.9	46.9	11.5	21.9
Milk										
Milk prod. 21 States (mil. lb.)	125,772	125,871	128,300	10,850	10,184	10,659	10,760	9,985	11,067	10,967
Milk per cow (lb.)	14,778	14,977	15,546	1,314	1,237	1,292	1,310	1,216	1,356	1,344
Number of milk cows (1,000)	8,512	8,391	8,253	8,255	8,235	8,247	8,215	8,196	8,178	8,158
U.S. milk production (mil. lb.)	148,314	148,477	151,747	11,763	8/ 12,072	8/ 12,629	8/ 12,773	8/ 11,830	8/ 13,161	8/ 12,976
Stock, beginning										
Total (mil. lb.)	9,036	13,359	15,841	18,843	16,038	14,826	14,215	15,410	15,398	16,328
Commercial (mil. lb.)	4,120	5,146	4,481	4,603	4,752	4,603	4,686	4,617	4,565	4,597
Government (mil. lb.)	4,916	8,213	11,379	14,240	11,286	10,223	9,528	10,693	10,831	11,731
Imports, total (mil. lb.)	2,690	2,625	2,520	211	263	323	171	135	243	—
Commercial disappearance (mil. lb.)	138,922	139,343	142,106	11,763	11,984	12,086	10,971	10,571	12,034	—
Butter										
Production (mil. lb.)	1,302.2	1,336.8	1,365.0	122.8	98.3	119.8	144.4	138.9	139.1	124.2
Stocks, beginning (mil. lb.)	256.2	416.1	539.4	645.3	541.7	487.6	447.7	495.4	497.0	525.0
Commercial disappearance (mil. lb.)	915.2	903.5	943.2	72.3	88.3	97.2	70.6	76.9	90.2	—
American cheese										
Production (mil. lb.)	2,894.2	2,768.9	2,936.5	245.8	230.6	259.6	247.8	222.9	238.1	254.8
Stocks, beginning (mil. lb.)	236.2	347.4	318.7	335.5	328.9	324.8	346.7	352.1	332.5	326.7
Commercial disappearance (mil. lb.)	2,784.4	2,756.7	2,900.9	245.2	239.2	239.4	240.8	238.8	236.5	—
Other cheese										
Production (mil. lb.)	3,167.0	3,249.9	3,551.6	295.0	316.9	312.0	261.3	268.0	307.9	297.9
Stocks, beginning (mil. lb.)	93.2	110.6	97.5	113.5	121.7	121.9	120.9	129.3	124.4	133.3
Commercial disappearance (mil. lb.)	3,426.4	3,539.2	3,794.9	314.8	345.6	349.8	266.8	284.2	323.7	—
Nonfat dry milk										
Production (mil. lb.)	879.2	877.5	872.1	81.7	55.7	79.2	76.5	63.6	69.1	90.7
Stocks, beginning (mil. lb.)	49.5	161.9	214.8	127.5	90.8	87.6	81.2	72.4	71.5	78.5
Commercial disappearance (mil. lb.)	697.6	662.7	699.9	72.0	47.0	38.5	34.8	36.7	51	—
Frozen dessert										
Production (mil. gal.) 5/	1,174.6	1,203.1	1,196.8	110.1	76.1	77.9	73.4	81.7	101.6	105.3
	Annual			1991		1992				1993
	1990	1991	1992	III	IV	I	II	III	IV	I
Milk production (mil. lb.)	148,314	148,477	151,747	36,232	36,270	37,989	39,077	37,515	37,166	37,784
Milk per cow (lb.)	14,642	14,860	15,423	3,643	3,655	3,852	3,971	3,818	3,782	3,863
No. of milk cows (1,000)	10,127	9,992	9,839	9,944	9,923	9,853	9,841	9,826	9,827	9,775
Milk-feed price ratio 6/	1.71	1.58	1.69	1.59	1.77	1.88	1.65	1.75	1.69	1.60
Returns over concentrate costs (\$/cwt milk) 6/	10.17	8.95	9.74	9.25	10.45	9.60	9.50	10.10	9.75	9.00

1/ Manufacturing grade milk. 2/ Prices paid f.o.b. Central States Production area. 3/ Includes products exported through the Dairy Export Incentive Program (DEIP).
 4/ Milk equivalent, fat basis. 5/ Hard ice cream, ice milk, & hard sherbat. 6/ Based on average milk price after adjustment for price support deductions.
 7/ Less than 50,000 pounds. 8/ Estimated. — = not available.

Information contact: LaVerne T. Williams (202) 219-0770.

Table 15.—Wool

	Annual			1991		1992				1993
	1990	1991	1992	IV	I	II	III	IV	I	I
U.S. wool price, (cwt./lb.) 1/	256	199	204	182	209	222	210	178	146	146
Imported wool price, (cwt./lb.) 2/	287	187	210	222	250	233	203	189	171	171
U.S. mill consumption, scoured										
Apparel wool (1,000 lb.)	120,622	137,187	139,715	33,916	36,929	36,045	34,462	32,279	35,152	35,152
Carpet wool (1,000 lb.)	12,124	14,352	14,726	3,588	4,580	3,623	3,145	3,378	4,917	4,917

1/ Wool price delivered at U.S. mills, clean basis, Graded Territory 64's (20.60-22.04 microns) staple 2-3/4" & up. 2/ Wool price, Charleston, SC warehouse, clean basis, Australian 60/62's, type 64A (24 micron). Duty since 1982 has been 10.0 cents. — = not available.

Information contact: John Lawler (202) 219-0840.

Table 16.—Meat Animals

	Annual			1992			1993			
	1990	1991	1992	Apr	Nov	Dec	Jan	Feb	Mar	Apr
Cattle on feed (7 States)										
Number on feed (1,000 head) 1/	6,378	8,992	8,397	8,008	8,584	8,894	9,073	9,055	8,768	8,711
Placed on feed (1,000 head)	21,030	19,704	20,498	1,425	1,843	1,894	1,821	1,262	1,621	1,318
Marketings (1,000 head)	19,198	19,066	18,623	1,490	1,442	1,414	1,509	1,441	1,565	1,552
Other disappearance (1,000 head)	1,218	1,233	1,199	125	91	101	130	110	111	126
Beef steer-corn price ratio, Omaha 2/	32.8	31.6	33.3	31.6	38.0	38.8	39.6	40.0	38.7	37.6
Hog-corn price ratio, Omaha 2/	23.1	21.1	19.0	17.2	21.0	21.2	20.7	22.2	22.1	20.9
Market prices (\$/cwt)										
Slaughter cattle										
Choice steers, Omaha 1,000-1,100 lb.	77.40	73.83	74.65	76.93	74.41	76.58	79.15	80.38	82.45	81.47
Choice steers, Neb. Direct, 1,100-1,300 lb.	78.56	74.28	75.36	77.61	75.11	77.34	79.01	80.34	82.60	82.25
Boning utility cows, Sioux Falls	53.60	50.31	44.84	44.82	42.09	44.71	46.50	47.25	49.50	49.15
Feeder cattle										
Medium no. 1, Oklahoma City 600-700 lb.	92.15	92.74	85.57	84.57	85.90	86.67	89.92	89.06	90.49	92.82
Slaughter hogs										
Barrows & gilts, Iowa, S. Minn.	55.32	49.69	43.05	42.31	42.03	42.73	42.18	44.81	47.51	46.09
Feeder pigs										
S. Mo. 40-50 lb. (per head)	51.46	39.84	31.71	37.89	30.69	29.78	34.63	48.17	51.38	49.35
Slaughter sheep & lambs										
Lambs, Choice, San Angelo	55.54	53.21	61.00	74.63	56.93	67.25	69.88	73.38	75.50	71.25
Ewes, Good, San Angelo	35.21	31.98	35.39	35.00	32.92	40.75	39.94	43.44	46.80	31.95
Feeder lambs										
Choice, San Angelo	62.95	53.54	62.09	70.56	58.75	71.13	73.63	78.09	84.10	71.45
Wholesale meat prices, Midwest										
Boxed beef cut-out value	123.21	118.31	116.73	118.66	115.26	119.95	122.69	122.13	124.80	126.12
Canner & cutter cow beef	99.96	99.42	93.85	94.16	88.13	95.31	96.58	97.23	96.13	95.55
Pork loins, 14-18 lb. 3/	117.52	108.39	101.41	98.65	89.64	96.22	98.22	100.05	100.61	107.61
Pork bellies, 12-14 lb.	53.80	47.79	30.39	26.93	30.48	26.80	31.97	33.22	41.28	41.19
Hams, skinned, 17-20 lb.	84.87	75.68	67.42	62.48	82.45	72.67	61.98	68.83	73.78	63.81
All fresh beef retail price 4/	262.48	271.05	266.87	269.02	267.14	266.95	270.43	272.48	273.21	275.96
Commercial slaughter (1,000 head) 5/										
Cattle	33,241	32,690	32,873	2,587	2,560	2,703	2,669	2,466	2,775	2,681
Steers	16,587	16,728	17,135	1,355	1,271	1,383	1,334	1,284	1,434	1,409
Heifers	10,090	9,725	9,236	713	706	710	753	690	747	721
Cows	5,920	5,623	5,846	458	531	560	533	466	542	499
Bulls & stags	644	614	653	51	51	50	49	46	52	52
Calves	1,789	1,436	1,371	111	113	124	104	99	119	98
Sheep & lambs	5,654	5,722	5,493	528	428	478	393	395	489	482
Hogs	85,138	88,169	94,888	7,792	7,986	8,360	7,832	7,092	8,146	8,002
Commercial production (mil. lb.)										
Beef	22,634	22,800	22,968	1,787	1,784	1,855	1,823	1,877	1,858	1,782
Veal	316	296	299	25	23	26	22	21	26	22
Lamb & mutton	358	358	343	33	27	29	25	25	32	30
Pork	15,300	15,948	17,185	1,414	1,455	1,624	1,435	1,290	1,481	1,465

	Annual			1991	1992				1993	
	1990	1991	1992		I	II	III	IV	I	II
Cattle on feed (13 States)										
Number on feed (1,000 head) 1/	9,943	10,827	10,135	8,620	10,135	9,693	8,847	8,820	10,884	10,462
Placed on feed (1,000 head)	24,803	23,208	24,246	7,086	5,403	5,273	6,107	7,463	5,326	—
Marketings (1,000 head)	22,526	22,383	22,061	6,262	5,441	5,875	5,766	5,179	5,309	* 5,865
Other disappearance (1,000 head)	1,393	1,517	1,438	309	404	444	268	320	439	—
Hogs & pigs (10 States) 6/										
Inventory (1,000 head) 1/	42,200	45,735	47,940	47,080	45,735	44,800	47,255	49,175	47,440	46,880
Breeding (1,000 head) 1/	5,275	5,610	5,800	5,680	5,610	5,555	5,845	5,840	5,740	5,850
Market (1,000 head) 1/	36,925	40,125	42,140	41,400	40,125	39,245	41,410	43,335	41,700	41,030
Farrowings (1,000 head)	8,960	9,516	9,938	2,348	2,296	2,663	2,521	2,458	2,340	* 2,710
Pig crop (1,000 head)	70,589	75,330	80,490	18,551	18,532	21,570	20,559	19,829	19,156	—

1/ Beginning of period. 2/ Bushels of corn equal in value to 100 pounds live weight. 3/ Prior to 1984, 8-14 lb.; 1984 & 1985, 14-17 lb.; beginning 1986, 14-18 lb. 4/ New series estimating the composite price of all beef grades & ground beef sold by retail stores. This new series is in addition to, but does not replace, the series for the retail price of Choice beef that appears in table 8. 5/ Classes estimated. 6/ Quarters are Dec. of preceding year-Feb. (I), Mar.-May (II), June-Aug. (III), & Sept.-Nov. (IV). May not add to NASS totals due to rounding. — = not available. * Intentions.

Information contact: Polly Cochran (202) 219-0767.

Crops & Products

Table 17.—Supply & Utilization^{1,2}

	Area			Yield	Production	Total supply ^{4/}	Feed and residual	Other domestic use	Exports	Total use	Ending stocks	Farm price ^{5/}
	Set aside ^{3/}	Planted	Harvested									
	Mil. acres		Bu./acre					Mil. bu.				\$/bu.
Wheat												
1988/89	22.5	65.5	53.2	34.1	1,812	3,096	150	829	1,415	2,394	702	3.72
1989/90	9.8	76.6	62.2	32.7	2,037	2,762	144	849	1,232	2,225	536	3.72
1990/91	7.5	77.2	69.3	39.5	2,736	3,309	499	875	1,058	2,443	866	2.61
1991/92*	15.9	69.9	57.7	34.3	1,981	2,888	254	883	1,280	2,410	472	3.00
1992/93*	7.3	72.3	62.4	39.4	2,459	3,003	225	923	1,355	2,503	499	3.25
1993/94*	—	72.3	64.5	39.1	2,524	3,099	275	939	1,225	2,439	660	2.55-2.95
	Mil. acres		Lb./acre					Mil. cwt (rough equiv.)				\$/cwt
Rice												
1988/89	1.09	2.93	2.90	5,514	159.9	195.1	—	8/ 82.5	85.9	158.4	26.7	6.83
1989/90	1.18	2.73	2.69	5,749	154.5	185.6	—	8/ 82.1	77.2	159.3	26.4	7.35
1990/91	1.02	2.90	2.82	5,529	156.1	187.2	—	8/ 91.7	70.9	162.7	24.6	6.70
1991/92*	0.9	2.88	2.78	5,674	157.5	187.3	—	8/ 93.7	68.4	160.1	27.3	7.58
1992/93*	0.4	3.17	3.13	5,722	179.1	212.4	—	8/ 97.5	78.0	173.5	38.9	5.80-6.00
1993/94*	—	3.13	3.08	5,655	173.0	218.4	—	8/ 100.6	80.0	180.5	37.9	4.50-6.00
	Mil. acres		Bu./acre					Mil. bu.				\$/bu.
Corn												
1988/89	20.5	67.7	58.3	84.6	4,929	9,191	3,941	1,293	2,026	7,260	1,930	2.54
1989/90	10.8	72.2	64.7	116.3	7,525	9,458	4,389	1,358	2,368	8,113	1,344	2.38
1990/91	10.7	74.2	67.0	118.5	7,934	9,282	4,663	1,373	1,725	7,761	1,521	2.28
1991/92*	7.4	76.0	68.8	108.0	7,475	9,018	4,878	1,454	1,584	7,916	1,100	2.37
1992/93*	5.3	79.3	72.1	131.4	9,479	10,583	5,250	1,495	1,725	8,470	2,113	2.00-2.10
1993/94*	—	76.5	69.3	122.7	8,500	10,618	5,400	1,550	1,550	8,500	2,118	1.85-2.25
	Mil. acres		Bu./acre					Mil. bu.				\$/bu.
Sorghum												
1988/89	3.9	10.3	9.0	83.8	577	1,239	466	22	311	800	440	2.27
1989/90	3.3	12.6	11.1	55.4	615	1,055	617	15	303	835	220	2.10
1990/91	3.3	10.5	9.1	83.1	573	793	410	9	232	851	143	2.12
1991/92*	2.8	11.1	9.9	59.3	585	727	374	9	292	674	53	2.25
1992/93*	2.0	13.3	12.2	72.8	884	937	475	8	275	758	180	1.80-1.90
1993/94*	—	11.2	10.0	66.0	660	840	425	8	275	708	132	1.70-2.20
	Mil. acres		Bu./acre					Mil. bu.				\$/bu.
Barley												
1988/89	2.8	9.8	7.6	38.0	290	622	171	175	79	425	196	2.80
1989/90	2.3	9.1	8.3	48.6	404	614	193	175	84	453	161	2.42
1990/91	2.9	8.2	7.5	56.1	422	596	205	178	81	461	135	2.14
1991/92*	2.2	8.9	8.4	55.2	464	624	230	171	94	496	129	2.10
1992/93*	2.3	7.8	7.3	62.4	456	597	195	165	80	440	157	2.03
1993/94*	—	7.7	7.1	57.0	405	582	190	165	80	435	147	1.85-2.25
	Mil. acres		Bu./acre					Mil. bu.				\$/bu.
Oats												
1988/89	0.3	13.9	5.5	39.3	218	392	194	100	1	294	98	2.61
1989/90	0.4	12.1	6.9	54.3	374	538	266	115	1	361	157	1.49
1990/91	0.2	10.4	5.9	60.1	358	578	288	120	1	407	171	1.14
1991/92*	0.6	8.7	4.8	50.7	243	489	235	125	2	362	128	1.20
1992/93*	0.7	8.0	4.5	65.8	295	472	230	125	6	361	111	1.33
1993/94*	—	8.1	4.4	55.5	245	421	185	125	5	315	106	1.15-1.55
	Mil. acres		Bu./acre					Mil. bu.				\$/bu.
Soybeans												
1988/89	0	58.8	57.4	27.0	1,549	1,855	7/ 88	1,058	527	1,673	182	7.42
1989/90	0	60.8	59.5	32.3	1,924	2,109	7/ 101	1,146	623	1,870	239	5.69
1990/91	0	57.8	56.5	34.1	1,926	2,168	7/ 95	1,187	557	1,839	329	5.74
1991/92*	0	59.2	58.0	34.2	1,987	2,310	7/ 102	1,254	685	2,041	278	6.58
1992/93*	0	58.3	58.4	37.6	2,197	2,477	7/ 112	1,280	775	2,167	310	5.50
1993/94*	0	58.3	58.2	35.1	2,045	2,358	7/ 98	1,285	710	2,093	285	5.35-6.35
	Mil. lbs.							Mil. lbs.				¢/Ctn./lb.
Soybean oil												
1988/89	—	—	—	—	11,737	13,967	—	10,591	1,681	12,252	1,715	21.10
1989/90	—	—	—	—	13,004	14,741	—	12,083	1,353	13,436	1,305	22.30
1990/91	—	—	—	—	13,408	14,730	—	12,164	780	12,944	1,788	21.00
1991/92*	—	—	—	—	14,345	16,132	—	12,245	1,648	13,893	2,239	19.10
1992/93*	—	—	—	—	13,834	16,075	—	12,675	1,600	14,275	1,800	20.75
1993/94*	—	—	—	—	14,645	16,450	—	12,900	1,550	14,450	2,000	20.0-23.0
								1,000 tons				¢/ton
Soybean meal												
1988/89	—	—	—	—	24,943	25,100	—	19,657	5,270	24,927	173	252.4
1989/90	—	—	—	—	27,719	27,900	—	22,283	5,319	27,582	318	188.5
1990/91	—	—	—	—	28,325	28,688	—	22,934	5,489	28,403	285	181.4
1991/92*	—	—	—	—	29,831	30,183	—	23,103	6,850	29,953	230	189.2
1992/93*	—	—	—	—	30,460	30,800	—	23,900	6,625	30,525	275	187.5
1993/94*	—	—	—	—	30,575	30,925	—	24,250	6,400	30,650	275	175-200

See footnotes at end of table.

Table 17.—Supply & Utilization, continued

	Area											
	Set Aside 3/	Planted	Harvested	Yield	Production	Total supply 4/	Feed and residual	Other domestic use	Exports	Total use	Ending Stocks	Farm price 5/
	Mil. acres		Lb./acre		Mil. bales						Cts./lb.	
Cotton 10/												
1988/89	2.2	12.5	11.9	819	15.4	21.2	—	7.8	6.1	13.9	7.1	56.60
1989/90	3.5	10.8	9.5	814	12.2	19.3	—	8.8	7.7	16.5	3.0	68.20
1990/91	2.0	12.3	11.7	834	15.5	18.5	—	8.7	7.8	16.5	2.3	67.10
1991/92	1.2	14.1	13.0	852	17.6	20.0	—	9.6	6.7	16.3	3.7	58.10
1992/93	1.7	13.2	11.1	699	16.2	19.9	—	9.9	5.4	15.3	4.7	54.60
1993/94	—	13.4	12.4	680	17.5	22.2	—	10.3	6.3	16.6	8.7	11/ 12/

* June 10, 1993 Supply & Demand Estimates. 1/ Marketing year beginning June 1 for wheat, barley, & oats, August 1 for cotton & rice, September 1 for soybeans, corn, & sorghum, October 1 for soybean meal & soybean oil. 2/ Conversion factors: Hectare (ha.) = 2.471 acres, 1 metric ton = 2,204.622 pounds, 36.7437 bushels of wheat or soybeans, 39.3879 bushels of corn or sorghum, 45.9296 bushels of barley, 68.8944 bushels of oats, 22.046 cwt of rice, & 4.59 480-pound bales of cotton. 3/ Includes diversion, acreage reduction, 50-92, & 0-92 programs. 0/92 & 50/92 set-aside includes idled acreage & acreage planted to minor oilseeds, sesame, and crambe. 4/ Includes imports. 5/ Marketing-year weighted average price received by farmers. Does not include an allowance for loans outstanding & Government purchases. 6/ Residual included in domestic use. 7/ Includes seed. 8/ Simple average of crude soybean oil, Decatur. 9/ Simple average of 48 percent, Decatur. 10/ Upland & extra long staple. Stocks estimates based on Census Bureau data, resulting in an unaccounted difference between supply & use estimates & changes in ending stocks. 11/ Weighted average for August 1-April 1; not a projection for the marketing year. 12/ USDA is prohibited from publishing cotton price projections. — = not available or not applicable.

Information contact: Commodity Economics Division, Crops Branch (202) 219-0840.

Table 18.—Cash Prices, Selected U.S. Commodities

	Marketing year 1/				1992		1993			
	1988/89	1989/90	1990/91	1991/92	Apr	Dec	Jan	Feb	Mar	Apr
Wheat, No. 1 HRW, Kansas City (\$/bu.) 2/	4.17	4.22	2.94	3.77	4.02	3.81	3.97	3.75	3.74	3.59
Wheat, DNS, Minneapolis (\$/bu.) 3/	4.36	4.16	3.06	3.82	4.28	3.88	4.05	3.87	3.87	3.80
Rice, S.W. La. (\$/cwt) 4/	14.85	15.55	15.25	16.48	16.45	14.25	13.40	13.00	12.60	12.10
Corn, no. 2 yellow, 30 day, Chicago (\$/bu.)	2.68	2.64	2.41	2.52	2.58	2.17	2.18	2.14	2.23	2.32
Sorghum, no. 2 yellow, Kansas City (\$/cwt)	4.17	4.21	4.08	4.36	4.41	3.70	3.70	3.86	3.70	3.72
Barley, feed, Duluth (\$/bu.) 5/	2.32	2.20	2.13	2.17	2.35	2.06	2.06	2.08	2.12	2.12
Barley, malting, Minneapolis (\$/bu.)	4.11	3.28	2.42	2.38	2.60	2.36	2.36	2.32	2.33	2.34
U.S. price, SLM, 1-1/16 in. (cts./lb.) 6/	57.7	69.8	74.8	56.7	55.0	51.9	53.7	55.4	56.5	56.2
Northern Europe prices index (cts./lb.) 7/	66.4	82.3	82.9	82.9	58.2	54.3	57.4	60.6	61.4	60.9
U.S. M 1-3/32 in. (cts./lb.) 8/	69.2	83.8	88.2	66.3	62.7	61.9	63.4	66.1	66.6	66.3
Soybeans, no. 1 yellow, 30 day, Chicago (\$/bu.)	7.41	6.86	6.76	6.75	6.73	5.86	6.73	5.56	5.59	5.86
Soybean oil, crude, Decatur (cts./lb.)	21.10	22.30	21.00	19.10	19.00	20.52	21.23	20.72	21.00	21.24
Soybean meal, 48% protein, Decatur (\$/ton) 9/	252.40	186.60	181.40	189.20	187.20	187.60	188.75	179.90	183.60	187.40

1/ Beginning June 1 for wheat & barley; Aug. 1 for rice & cotton; Sept. 1 for corn, sorghum & soybeans; Oct. 1 for soybean meal & oil. 2/ Ordinary protein. 3/ 14% protein. 4/ Long grain, milled basis. 5/ Beginning Mar. 1987 reporting point changed from Minneapolis to Duluth. 6/ Average spot market. 7/ Liverpool Cotton "A" Index; average of five lowest prices of 13 selected growths. 8/ Memphis territory growths. 9/ Note change to 48% protein. NQ = no quotation.

Information contacts: Wheat, rice, & feed grains, Joy Harwood (202) 219-0840; Cotton, Lee Meyer (202) 219-0840; Soybeans, Brenda Toland, (202) 219-0840.

Table 19.—Farm Programs, Price Supports, Participation & Payment Rates

Payment rates									
	Target price	Basic loan rate	Findley or announced loan rate 1/	Paid land diversion			Effective base acres 2/	Program 3/	Participation rate 4/
				Total deficiency	Mandatory	Optional			
				\$/bu.			Mil. acres	Percent of base	Percent of base
Wheat									
1988/89	4.23	2.78	2.21	0.69	---	---	84.8	27.5/0/0	88
1989/90	4.10	2.58	2.08	0.32	---	---	82.3	10/0/0	78
1990/91 5/	4.00	2.44	1.95	1.28	---	---	80.6	5/0/0	83
1991/92	4.00	2.52	2.04	1.35	---	---	79.2	15/0/0	85
1992/93	4.00	2.58	2.21	0.81	---	---	78.9	5/0/0	83
1993/94	4.00	2.88	2.45	1.05	---	---	---	0/0/0	---
1994/95	---	---	---	---	---	---	---	0/0/0	---
Rice									
1987/88	11.88	6.84	7/ 6.15	4.82	---	---	4.2	35/0/0	96
1988/89	11.15	6.63	7/ 6.50	4.31	---	---	4.2	25/0/0	94
1989/90	10.80	6.50	7/ 6.00	3.56	---	---	4.2	25/0/0	94
1990/91 5/	10.71	6.50	7/ 5.40	4.18	---	---	4.2	20/0/0	95
1991/92	10.71	6.50	7/ 5.85	3.07	---	---	4.2	5/0/0	85
1992/93	10.71	6.50	---	4.21	---	---	4.1	0/0/0	96
1993/94	10.71	6.50	---	4.21	---	---	---	5/0/0	---
Corn									
1987/88	3.03	2.28	1.82	1.08	---	2.00	81.5	20/0/15	90
1988/89	2.93	2.21	1.77	0.36	---	1.75	82.9	20/0/10	87
1989/90	2.84	2.06	1.65	0.58	---	---	82.7	10/0/0	79
1990/91 5/	2.75	1.96	1.57	0.51	---	---	82.8	10/0/0	78
1991/92	2.75	1.89	1.62	0.41	---	---	82.7	7.5/0/0	77
1992/93	2.75	2.01	1.72	0.73	---	---	82.1	5/0/0	76
1993/94	2.75	1.99	1.72	0.72	---	---	---	10/0/0	---
Sorghum									
1987/88	2.88	2.17	1.74	1.14	---	1.90	17.4	8/ 20/0/15	84
1988/89	2.78	2.10	1.68	0.48	---	1.65	16.8	20/0/10	82
1989/90	2.70	1.98	1.57	0.66	---	---	16.2	10/0/0	71
1990/91 5/	2.61	1.86	1.49	0.56	---	---	15.4	10/0/0	70
1991/92	2.61	1.80	1.54	0.37	---	---	13.5	7.5/0/0	77
1992/93	2.61	1.91	1.63	0.70	---	---	13.6	5/0/0	79
1993/94	2.61	1.89	1.63	0.70	---	---	---	5/0/0	---
Barley									
1987/88	2.60	1.88	1.49	0.79	---	1.60	12.5	8/ 20/0/15	85
1988/89	2.51	1.80	1.44	0.00	---	1.40	12.5	20/0/10	79
1989/90	2.44	1.68	1.34	0.00	---	---	12.3	10/0/0	67
1990/91 5/	2.38	1.60	1.28	0.20	---	---	11.9	10/0/0	68
1991/92	2.38	1.54	1.32	0.62	---	---	11.5	7.5/0/0	76
1992/93	2.36	1.84	1.40	0.56	---	---	11.1	5/0/0	75
1993/94	2.36	1.62	1.40	0.52	---	---	---	0/0/0	---
Oats									
1987/88	1.80	1.17	0.94	0.20	---	0.80	8.4	8/ 20/0/15	45
1988/89	1.55	1.14	0.91	0.00	---	---	7.9	5/0/0	30
1989/90	1.50	1.06	0.85	0.00	---	---	7.8	5/0/0	18
1990/91 5/	1.45	1.01	0.81	0.32	---	---	7.5	5/0/0	09
1991/92	1.45	0.97	0.83	0.35	---	---	7.3	0/0/0	38
1992/93	1.45	1.03	0.88	0.17	---	---	7.2	0/0/0	40
1993/94	1.45	1.02	0.88	0.15	---	---	---	0/0/0	---
Soybeans 9/									
1987/88	---	---	4.77	---	---	---	---	---	---
1988/89	---	---	4.77	---	---	---	---	---	---
1989/90	---	---	4.63	---	---	---	---	10/ 10/25	---
1990/91 5/	---	---	4.50	---	---	---	---	10/ 0/25	---
1991/92	---	---	5.02	---	---	---	---	10/ 0/25	---
1992/93	---	---	5.02	---	---	---	---	10/ 0/25	---
1993/94	---	---	5.02	---	---	---	---	10/ 0/25	---
Upland cotton									
1987/88	79.4	52.25	11/ 52.25	17.3	---	---	14.5	25/0/0	83
1988/89	75.9	51.80	11/ 51.80	19.4	---	---	14.5	12.5/0/0	89
1989/90	73.4	50.00	11/ 50.00	13.1	---	---	14.6	25/0/0	88
1990/91 5/	72.9	50.27	11/ 50.27	7.3	---	---	14.4	12.5/0/0	86
1991/92 12/	72.9	50.77	11/ 47.23	10.1	---	---	14.6	5/0/0	84
1992/93	72.9	52.35	11/ ---	20.3	---	---	14.9	10/0/0	89
1993/94	72.9	52.35	11/ ---	20.55	---	---	---	7.5/0/0	---

1/ There are no Findley loan rates for rice or cotton. See footnotes 7/ & 11/. 2/ National effective crop acreage base as determined by ASCS. Net of CRP. 3/ Program requirements for participating producers (mandatory acreage reduction program/mandatory paid land diversion/optional paid land diversion). Acres idled must be devoted to a conserving use to receive program benefits. 4/ Percentage of effective base acres enrolled in acreage reduction programs. 5/ Payments & loans were reduced by 1.4 percent in 1990/91 due to Gramm-Rudman-Hollings. Budget Reconciliation Act reductions to deficiency payments rates were also in effect in that year. Data do not include these reductions. 6/ Under 1990 modified contracts, participating producers plant up to 105 percent of their wheat base acres. For every acre planted above 85 percent of base, the acreage used to compute deficiency payments was cut by 1 acre. 7/ A marketing loan has been in effect for rice since 1985/86. Loans may be repaid at the lower of: a) the loan rate or b) the adjusted world market price (announced weekly). However, loans cannot be repaid at less than a specified fraction of the loan rate. Data refer to market-year average loan repayment rates. 8/ The sorghum, oats, & barley programs are the same as for corn except as indicated. 9/ There are no target prices, base acres, acreage reduction programs, or deficiency payment rates for soybeans. 10/ Nominal percentage of program crop base acres permitted to shift into soybeans without loss of base. 11/ A marketing loan has been in effect for cotton since 1986/87. In 1987/88 & after, loans may be repaid at the lower of: a) the loan rate or b) the adjusted world market price (announced weekly; Plan B). Starting in 1991/92, loans cannot be repaid at less than 70 percent of the loan rate. Data refer to annual average loan repayment rates. 12/ A marketing certificate program was implemented on August 1, 1991. — = not available.

* For wheat, the 1991/92 rate is the total deficiency payment rate for the "regular" program. For the winter wheat option, the rate is \$1.25.

** For wheat, corn, sorghum, barley, and oats, regular deficiency payment rate based on the 5-month price. For rice and upland cotton, total deficiency payment rate.

*** Estimated total deficiency payment rate. Minimum guaranteed payment rate for 0/92 (wheat & feed grains) & 50/92 (rice and upland cotton) programs. Sign-up for 1993 programs was March 1–April 30, 1993.

Information contact: Joy Harwood (202) 219-0840.

Table 20.—Fruit

	1984	1985	1986	1987	1988	1989	1990	1991 P	1992
Citrus 1/ Production (1,000 ton)	10,832	10,525	11,058	11,993	12,781	13,186	10,860	11,285	12,386
Per capita consumpt. (lbs.) 2/ Noncitrus 3/ Production (1,000 tons)	22.6	21.8	24.3	24.0	25.4	25.1	22.1	19.9	—
Per capita consumpt. (lbs.) 2/ Production (1,000 tons)	14,301	14,191	13,874	16,011	15,893	16,365	15,656	15,801	16,939
Per capita consumpt. (lbs.) 2/ Production (1,000 tons)	66.3	65.3	68.8	73.5	72.0	73.6	70.5	70.7	—
	1992				1993				
	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr
F.o.b. shipping point prices Apples (\$/carton) 4/ Pears (\$/box) 5/ Grower prices Oranges (\$/box) 6/ Grapefruit (\$/box) 6/ Stocks, ending Fresh apples (mil. lbs.) Fresh pears (mil. lbs.) Frozen fruits (mil. lbs.) Frozen orange juice (mil. lbs.)	25.70 — — 1.65 3.32 33.5 139.1 881.0 874.9	16.73 — — 1.37 3.73 3,479.5 523.1 742.0	15.38 13.05 1.79 7.09 5,580.0 380.4 1,073.5 666.2	14.46 13.54 3.80 4.11 4,968.3 276.7 1,008.2 638.0	13.60 13.86 2.90 4.66 4,077.3 223.4 868.4 892.9	14.50 16.00 2.66 3.00 3,433.1 174.2 823.3 1,135.9	12.33 16.00 2.39 2.42 2,789.3 128.1 842.1 1,289.4	10.66 16.00 2.11 1.48 2,011.1 81.7 744.8 1,283.7	11.33 16.08 3.23 2.13 1,341.4 51.5 694.2 1,452.4

1/ 1992 indicated 1991/92 season. 2/ Fresh per capita consumption. 3/ Calendar year. 4/ Red delicious. Washington, extra fancy, carton tray pack, 125's.
5/ D'Anjou, Washington, standard box wrapped, U.S. no. 1, 135's. 6/ U.S. equivalent on-tree returns. P = preliminary. — = not available.

Information contact: Wynne Napper (202) 219-0884.

Table 21.—Vegetables

	Calendar year									
	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992 P
Production Total vegetables (1,000 cwt) Fresh (1,000 cwt) 1/ 3/ Processed (tons) 2/ 3/ Mushrooms (1,000 lbs.) 4/ Potatoes (1,000 cwt) Sweetpotatoes (1,000 cwt) Dry edible beans (1,000 cwt)	403,509 185,782 10,886,350 561,531 333,726 12,063 15,520	456,334 201,817 12,725,880 595,881 362,039 12,902 21,070	453,030 203,649 12,474,040 587,956 406,809 14,573 22,298	448,629 203,165 12,273,200 614,393 361,743 12,368 22,960	478,381 220,639 12,892,100 631,819 389,320 11,611 26,031	468,779 228,397 12,019,110 667,759 356,438 10,945 19,253	542,437 239,281 15,157,790 714,992 370,444 11,358 23,729	581,704 239,104 16,130,020 749,151 402,110 12,594 32,379	564,582 229,506 16,753,820 738,832 417,622 11,203 33,765	534,951 236,140 14,940,550 — 411,638 11,760 22,047
	1992					1993				
	Jan	Feb	Mar	Apr	May	Jun	Jan	Feb	Mar	Apr
Shipments (1,000 cwt) Fresh Iceberg lettuce Tomatoes Dry-bulb onions Other 5/ Potatoes Sweetpotatoes	22,749 5,374 2,935 3,538 10,902 14,747 301	17,429 4,103 2,198 2,494 8,634 12,213 295	17,527 3,844 2,145 2,205 9,233 14,325 247	26,955 5,991 3,739 3,718 13,509 22,793 387	28,050 4,811 3,201 2,797 17,241 14,643 176	29,056 4,465 3,223 2,602 18,766 11,788 184	19,087 4,287 2,927 2,856 9,017 13,376 291	18,977 4,172 3,109 2,747 8,949 11,180 270	24,099 5,054 3,885 3,390 11,770 18,545 468	18,958 3,570 2,865 2,448 10,073 18,489 334

1/ Includes fresh production of asparagus, broccoli, carrot, cauliflower, celery, sweet corn, lettuce, honeydews, onions, & tomatoes. 2/ Includes processing production of snap beans, sweet corn, green peas, tomatoes, cucumbers (for pickles), asparagus, broccoli, carrots, & cauliflower. 3/ Asparagus & cucumber estimates were not available for 1982 & 1983. 4/ Fresh & processing agaricus mushrooms only. Excludes specialty varieties. Crop year July 1 - June 30. 5/ Includes snap beans, broccoli, cabbage, carrots, cauliflower, celery, sweet corn, cucumbers, eggplant, bell peppers, squash, cantaloupes, honeydews, & watermelons. P = preliminary.

Information contacts: Gary Lucier or John Love (202) 219-0884.

Table 22.—Other Commodities

	Annual					1992				1993
	1988	1989	1990	1991	1992	Jan-Mar	Apr-June	July-Sept	Oct-Dec	Jan-Mar
Sugar Production 1/ Deliveries 1/ Stocks, ending 1/ Coffee Composite green price N.Y. (cts./lb.) Imports, green bean equiv. (mil. lbs.) 2/ Tobacco Prices at auctions 3/ Flue-cured (\$/lb.) Burley (\$/lb.) Domestic consumption 4/ Cigarettes (bil.) Large cigars (mil.)	7,087 8,188 3,132 — 119.59 2,072 — — 167.3 175.3 523.1 2,343.5	6,841 8,340 2,947 — 95.17 2,685 — — 172.3 178.8 518.3 2,231.9	6,334 8,661 2,729 — 78.93 2,715 — — — — 509.5 2,217.1	7,133 8,704 3,039 — 70.09 2,553 — — 155.0 — 38.3 167.7	7,501 8,820 3,220 — 55.30 2,989 — — 160.0 — 43.7 185.7	2,136 2,007 3,624 — 64.84 699 — — 182.5 — 43.0 194.3	716 2,208 2,757 — 58.19 840 — — 182.0 — 44.7 177.9	722 2,409 1,451 — 51.72 720 — — 172.7 182.7 44.2 189.6	3,929 2,312 3,225 — 48.36 704 — — — 182.5 38.4 171.7	2,351 2,064 3,904 — 61.94 705 — — — 180.0 31.9 125.1
	Annual					1992				1993
	1990	1991	1992	Jan	Aug	Sept	Oct	Nov	Dec	Jan

1/ 1,000 short tons, raw value. Quarterly data shown at end of each quarter. 2/ Net imports of green & processed coffee. 3/ Crop year July-June for flue-cured, Oct-Sept. for burley. 4/ Taxable removals. — = not available.

Information contacts: Sugar, Peter Buzzanell (202) 219-0886, Coffee, Fred Gray (202) 219-0888, Tobacco, Verner Grise (202) 219-0890.

World Agriculture

Table 23.—World Supply & Utilization of Major Crops, Livestock & Products

	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92 P	1992/93 F
Million units							
Wheat							
Area (hectares)	228.0	219.7	217.4	225.8	231.4	222.0	221.0
Production (metric tons)	524.1	496.0	495.0	533.0	587.8	542.1	558.0
Exports (metric tons) 1/	90.7	107.1	97.9	97.0	94.4	109.1	100.1
Consumption (metric tons) 2/	515.8	524.7	525.8	530.2	563.8	559.4	551.8
Ending stocks (metric tons) 3/	178.0	149.2	118.7	121.4	145.6	128.4	134.8
Coarse grains							
Area (hectares)	335.3	323.1	323.2	320.9	313.5	317.5	318.2
Production (metric tons)	822.1	783.6	720.8	790.3	819.8	800.7	852.8
Exports (metric tons) 1/	82.9	84.7	94.0	102.9	87.3	93.2	90.4
Consumption (metric tons) 2/	796.2	806.5	785.2	814.4	807.5	807.9	827.4
Ending stocks (metric tons) 3/	235.2	212.4	148.0	123.9	136.3	129.1	154.4
Rice, milled							
Area (hectares)	145.1	141.7	145.4	146.7	147.1	145.9	145.6
Production (metric tons)	318.7	314.5	330.0	342.8	350.7	348.2	351.0
Exports (metric tons) 4/	13.0	11.8	15.0	12.2	12.9	15.1	14.3
Consumption (metric tons) 2/	320.7	320.0	327.6	335.9	345.7	352.8	352.9
Ending stocks (metric tons) 3/	51.4	45.8	48.3	55.0	60.0	55.4	53.4
Total grains							
Area (hectares)	708.4	684.5	686.0	693.4	692.0	685.4	684.8
Production (metric tons)	1,662.9	1,594.1	1,545.8	1,665.9	1,758.3	1,691.0	1,761.8
Exports (metric tons) 1/	186.6	203.6	208.9	212.1	194.6	217.4	204.8
Consumption (metric tons) 2/	1,632.5	1,651.2	1,638.4	1,680.5	1,716.8	1,720.1	1,731.9
Ending stocks (metric tons) 3/	464.8	407.4	315.0	300.3	341.9	312.9	342.6
Oilseeds							
Crush (metric tons)	161.8	168.4	164.5	172.0	177.4	185.4	185.8
Production (metric tons)	194.9	210.5	201.8	212.5	216.0	223.7	227.7
Exports (metric tons)	37.7	39.5	31.5	35.5	33.0	37.0	38.6
Ending stocks (metric tons)	23.3	24.0	22.1	23.3	22.8	21.3	22.6
Meals							
Production (metric tons)	110.7	115.4	111.1	117.0	119.8	124.7	125.6
Exports (metric tons)	36.7	35.8	37.4	38.5	39.4	41.7	41.7
Oils							
Production (metric tons)	50.4	53.3	53.3	57.1	58.2	60.8	61.1
Exports (metric tons)	18.9	17.5	18.1	19.8	20.1	20.1	19.8
Cotton							
Area (hectares)	29.2	30.8	33.7	31.5	33.1	34.7	32.7
Production (bales)	70.8	81.1	84.4	79.9	87.0	96.0	82.2
Exports (bales)	33.4	29.9	33.1	31.3	29.8	27.7	25.8
Consumption (bales)	82.8	84.1	85.3	86.7	85.5	84.6	85.1
Ending stocks (bales)	35.7	32.8	31.9	26.3	28.9	41.1	38.3
	1987	1988	1989	1990	1991	1992	1993 F
Red meat							
Production (metric tons)	112.9	116.8	118.1	120.3	121.3	121.3	123.0
Consumption (metric tons)	111.0	114.6	116.7	118.1	119.3	119.8	121.4
Exports (metric tons) 1/	6.7	7.4	7.6	7.6	8.0	7.8	8.1
Poultry 5/							
Production (metric tons)	31.3	32.7	34.0	35.8	37.8	39.2	41.0
Consumption (metric tons)	30.8	32.0	33.2	34.9	37.1	38.8	40.6
Exports (metric tons) 1/	1.5	1.8	1.8	2.1	2.1	2.4	2.5
Dairy							
Milk production (metric tons)	425.7	428.9	434.7	442.0	429.4	415.0	407.9

1/ Excludes intra-EC trade. 2/ Where stocks data not available (excluding USSR), consumption includes stock changes. 3/ Stocks data are based on differing marketing years & do not represent levels at a given date. Data not available for all countries; includes estimated change in USSR grain stocks but not absolute level. 4/ Calendar year data. 1987 data correspond with 1986/87, etc. 5/ Poultry excludes the Peoples Republic of China before 1986. P = preliminary. F = forecast.

Information contacts: Crops, Carol Whitton (202) 219-0824; red meat & poultry, Linda Bailey (202) 219-1285; dairy, Sara Short (202) 219-0770.

U.S. Agricultural Trade

Table 24.—Prices of Principal U.S. Agricultural Trade Products

	Annual			1992			1993			
	1990	1991	1992	Apr	Nov	Dec	Jan	Feb	Mar	Apr
Export commodities										
Wheat, f.o.b. vessel, Gulf ports (\$/bu.)	3.72	3.52	4.13	4.36	4.03	4.03	4.25	4.06	4.05	3.87
Corn, f.o.b. vessel, Gulf ports (\$/bu.)	2.79	2.75	2.66	2.79	2.44	2.42	2.43	2.42	4.49	2.57
Grain sorghum, f.o.b. vessel, Gulf ports (\$/bu.)	2.65	2.69	2.63	2.78	2.39	2.45	2.44	2.42	2.46	2.44
Soybeans, f.o.b. vessel, Gulf ports (\$/bu.)	6.24	6.05	6.01	6.05	5.84	5.96	6.08	6.03	6.09	6.18
Soybean oil, Decatur (cts./lb.)	22.75	20.14	19.16	18.84	19.98	20.58	21.20	20.61	21.01	21.29
Soybean meal, Decatur (\$/ton)	169.37	172.90	177.79	174.43	181.18	188.30	188.16	179.87	183.37	187.42
Cotton, 7—market avg. spot (cts./lb.)	71.25	69.69	53.90	54.97	49.98	51.85	53.72	55.38	56.45	56.16
Tobacco, avg. price at auction (cts./lb.)	170.57	179.23	173.08	182.04	182.97	182.51	179.96	186.53	188.53	157.44
Rice, f.o.b. mill, Houston (\$/cwt)	15.52	16.46	16.80	17.50	16.13	15.63	15.25	15.00	15.00	15.00
Indefinite tallow, Chicago (cts./lb.)	13.54	13.26	14.37	13.25	16.75	16.00	15.09	14.69	15.24	15.94
Import commodities										
Coffee, N.Y. spot (\$/lb.)	0.81	0.71	0.50	0.49	0.55	0.66	0.58	0.54	0.56	0.51
Rubber, N.Y. spot (cts./lb.)	46.28	45.73	46.25	45.86	48.00	48.03	48.03	48.30	46.41	44.17
Cocoa beans, N.Y. (\$/lb.)	0.55	0.52	0.47	0.44	0.46	0.44	0.46	0.42	0.41	0.43

Information contact: Mary Teymourian (202) 219-0824.

Table 25.—Indexes of Real Trade-Weighted Dollar Exchange Rates ^{1/}

	1992						1993				
	June	July	Aug	Sept	Oct	Nov P	Dec P	Jan P	Feb P	Mar P	Apr P
	1985 = 100										
Total U.S. trade 2/	62.1	59.9	59.0	59.5	61.9	65.6	65.8	67.3	68.4	68.3	66.1
Agricultural trade											
U.S. markets	76.0	74.7	74.2	74.2	75.2	77.6	77.3	78.2	78.4	78.3	77.0
U.S. competitors	76.6	75.6	75.1	77.2	75.7	77.7	77.4	78.3	78.6	79.1	78.4
Wheat											
U.S. markets	95.8	94.8	94.2	94.1	94.1	96.5	95.9	97.3	98.1	99.8	98.6
U.S. competitors	70.4	69.4	69.3	74.4	71.2	73.3	73.3	74.1	73.7	73.0	72.6
Soybeans											
U.S. markets	62.9	61.4	60.7	60.4	61.9	64.6	64.2	65.6	65.9	65.6	63.9
U.S. competitors	54.9	54.9	54.2	53.6	53.3	53.6	53.0	53.3	53.7	53.9	53.8
Corn											
U.S. markets	68.0	67.2	67.1	66.4	67.3	69.2	68.9	69.6	69.3	68.6	67.1
U.S. competitors	58.0	56.5	55.7	55.5	55.9	57.5	57.2	57.5	57.7	57.6	56.3
Cotton											
U.S. markets	72.0	71.3	71.2	70.7	71.6	73.3	73.4	74.1	74.1	73.6	72.4
U.S. competitors	110.5	109.8	109.3	112.1	109.7	110.7	108.4	110.5	110.2	110.4	110.0

^{1/} Real indexes adjust nominal exchange rates for differences in rates of inflation, to avoid the distortion caused by high-inflation countries. A higher value means the dollar has appreciated. See the October 1988 issue of Agricultural Outlook for a discussion of the calculations and the weights used. ^{2/} Federal Reserve Board index of trade-weighted value of the U.S. dollar against 10 major currencies. Weights are based on relative importance in world financial markets. P = preliminary.

Information contact: Tim Baxter (202) 219-0718.

Table 26.—Trade Balance

	Fiscal year ^{1/}							Mar
	1986	1987	1988	1989	1990	1991	1992	1993
	\$ million							
Exports								
Agricultural	26,312	27,876	35,316	39,590	40,220	37,609	42,417	42,500
Nonagricultural	179,291	202,911	258,656	301,269	326,059	356,682	377,278	—
Total ^{2/}	205,603	230,787	293,972	340,859	366,279	394,291	419,695	—
Imports								
Agricultural	20,684	20,650	21,014	21,476	22,560	22,588	24,323	25,000
Nonagricultural	342,846	367,374	409,138	441,075	458,101	463,720	487,554	—
Total ^{3/}	363,730	388,024	430,152	462,551	480,661	486,308	511,877	—
Trade balance								
Agricultural	5,428	7,226	14,302	18,114	17,660	15,021	18,094	17,500
Nonagricultural	-163,555	-164,483	-150,482	-139,806	-132,042	-107,038	-110,276	—
Total	-156,127	-157,237	-136,180	-121,692	-114,382	-92,017	-92,182	—

^{1/} Fiscal years begin October 1 & end September 30. Fiscal year 1992 began Oct. 1, 1991 & ended Sept. 30, 1992. ^{2/} Domestic exports including Department of Defense shipments (F.A.S. value). ^{3/} Imports for consumption (customs value). F = forecast. — = not available.

Information contact: Stephen MacDonald (202) 219-0822.

Table 27.—U.S. Agricultural Exports & Imports

	Fiscal year *			Mar	Fiscal year *			Mar
	1991	1992	1993 F	1993	1991	1992	1993 F	1993
	1,000 units				\$ million			
EXPORTS								
Animals, live (no.) 1/	1,235	1,477	—	98	546	567	—	21
Meats & preps., excl. poultry (mt)	936	1,108	2/ 900	96	2,773	3,236	—	268
Dairy products (mt) 1/	44	172	—	13	293	638	900	59
Poultry meats (mt)	628	795	900	76	737	915	—	80
Fats, oils, & greases (mt)	1,169	1,392	1,500	128	419	498	—	50
Hides & skins incl. furskins	—	—	—	—	1,451	1,337	—	121
Cattle hides, whole (no.) 1/	21,548	20,822	—	1,679	1,191	1,107	—	92
Mink pelts (no.) 1/	3,941	3,160	—	633	74	52	—	13
Grains & feeds (mt)	94,583	100,744	—	9,050	12,175	13,858	3/ 14,200	1,257
Wheat (mt)	26,792	34,287	35,500	3,232	2,867	4,319	4/ 4,800	446
Wheat flour (mt)	987	816	1,000	116	191	165	—	23
Rice (mt)	2,395	2,279	2,400	195	747	757	700	58
Feed grains, incl. products (mt)	52,353	50,646	53,300	4,433	5,790	5,793	5,300	460
Feeds & fodders (mt)	10,943	11,267	5/ 12,300	962	1,882	2,019	—	186
Other grain products (mt)	1,113	1,449	—	111	697	807	—	84
Fruits, nuts, & preps. (mt)	2,849	3,505	—	299	3,038	3,514	3,600	258
Fruit juices incl.	—	—	—	—	—	—	—	—
froz. (1,000 hectoliters) 1/	8,311	7,767	—	830	338	427	—	44
Vegetables & preps. (mt)	2,590	2,704	—	246	2,597	2,790	—	289
Tobacco, unmanufactured (mt)	239	248	—	18	1,533	1,568	1,600	115
Cotton, excl. linters (mt)	1,565	1,494	1,300	138	2,605	2,183	1,700	185
Seeds (mt)	514	701	—	67	617	659	700	66
Sugar, cane or beet (mt)	589	492	—	20	219	154	—	6
Oilseeds & products (mt)	22,295	28,642	—	3,109	5,643	7,156	7,500	761
Oilseeds (mt)	15,815	19,970	—	2,212	3,807	4,743	—	521
Soybeans (mt)	15,139	19,247	20,300	2,170	3,465	4,311	4,500	492
Protein meal (mt)	5,628	7,022	—	722	1,113	1,431	—	139
Vegetable oils (mt)	1,051	1,650	—	175	723	982	—	101
Essential oils (mt)	13	13	—	1	183	184	—	17
Other	499	490	—	8	2,441	2,733	—	272
Total	128,513	142,498	150,000	13,269	37,809	42,417	42,500	3,870
IMPORTS								
Animals, live (no.) 1/	3,168	2,830	—	324	1,131	1,275	1,600	138
Meats & preps., excl. poultry (mt)	1,191	1,134	—	110	3,016	2,684	—	263
Beef & veal (mt)	811	813	780	78	2,025	1,933	1,900	183
Pork (mt)	322	263	230	27	865	625	700	67
Dairy products (mt) 1/	231	232	—	18	767	818	900	67
Poultry & products 1/	—	—	—	—	119	132	—	11
Fats, oils, & greases (mt)	33	46	—	4	19	28	—	3
Hides & skins, incl. furskins 1/	—	—	—	—	153	185	—	21
Wool, unmanufactured (mt)	50	54	—	6	175	167	—	17
Grains & feeds (mt)	4,189	5,446	4,900	374	1,282	1,548	1,600	137
Fruits, nuts, & preps., excl. juices (mt)	5,850	5,883	5,900	654	2,741	2,919	—	328
Bananas & plantains (mt)	3,399	3,626	3,800	336	993	1,063	1,100	103
Fruit juices (1,000 hectoliters) 1/	27,948	26,049	24,000	1,711	737	871	—	44
Vegetables & preps. (mt)	2,416	2,171	—	385	2,183	2,125	2,400	283
Tobacco, unmanufactured (mt)	215	364	370	45	698	1,299	1,100	132
Cotton, unmanufactured (mt)	18	11	—	1	16	10	—	1
Seeds (mt)	169	174	200	38	173	214	200	30
Nursery stock & cut flowers 1/	—	—	—	—	538	578	—	49
Sugar, cane or beet (mt)	1,785	1,623	—	156	717	633	—	60
Oilseeds & products (mt)	2,077	2,330	—	214	959	1,124	1,200	102
Oilseeds (mt)	445	429	—	32	151	135	—	12
Protein meal (mt)	412	629	—	47	57	84	—	7
Vegetable oils (mt)	1,220	1,273	—	135	750	904	—	84
Beverages excl. fruit juices (1,000 hectoliters) 1/	12,987	13,739	—	1,157	1,858	2,044	—	163
Coffee, tea, cocoa, spices	2,045	2,391	2,210	209	3,294	3,415	—	261
Coffee, incl. products (mt)	1,118	1,330	1,200	124	1,831	1,798	1,600	162
Cocoa beans & products (mt)	700	773	740	56	1,019	1,122	1,000	78
Rubber & allied gums (mt)	792	920	1,000	95	664	756	900	84
Other	—	—	—	—	1,348	1,503	—	138
Total	—	—	—	—	22,588	24,323	25,000	2,351

*Fiscal years begin Oct. 1 & end Sept. 30. Fiscal year 1992 began Oct. 1, 1991 & ended Sept. 30, 1992. 1/ Not included in total volume and also other dairy products for 1991 & 1992. 2/ Forecasts for footnoted items 2/-6/ are based on slightly different groups of commodities. Fiscal 1991 exports of categories used in the 1991 forecasts were 2/ 876,000 m. tons. 3/ 16,014 million. 4/ 4,426 million i.e. includes flour. 5/ 11,065 million m. tons. 6/ Less than \$500. F = forecast. — = not available.

Information contact: Stephen MacDonald (202) 219-0822.

Table 28.—U.S. Agricultural Exports by Region

Region & country	Fiscal year*			Mar	Change from year* earlier			Mar
	1991	1992	1993 F	1993	1991	1992	1993 F	1993
	\$ million				Percent			
WESTERN EUROPE	7,312	7,740	8,100	730	-1	6	5	1
European Community (EC-12)	6,776	7,194	7,600	687	-1	6	6	1
Belgium-Luxembourg	464	461	--	50	9	-1	--	18
France	571	618	--	38	22	8	--	-33
Germany	1,135	1,091	--	118	2	-4	--	20
Italy	675	684	--	51	-4	1	--	0
Netherlands	1,561	1,813	--	166	-5	16	--	2
United Kingdom	883	882	--	74	18	0	--	13
Portugal	251	240	--	30	-26	-4	--	121
Spain, incl. Canary Islands	855	951	--	123	-12	11	--	-19
Other Western Europe	538	548	500	43	9	2	0	-3
Switzerland	194	187	--	15	13	-4	--	-30
EASTERN EUROPE	306	222	500	61	-36	-28	150	342
Poland	46	49	--	49	-54	8	--	3,060
Yugoslavia	74	50	--	5	-43	-32	--	211
Romania	82	78	--	2	-61	-8	--	-75
Former USSR	1,758	2,691	1,900	193	-42	53	-30	-49
ASIA	18,094	17,782	17,400	1,645	-11	10	-2	6
West Asia (Mideast)	1,430	1,770	1,900	195	-28	24	11	36
Turkey	224	344	--	42	-14	54	--	7
Iraq	0	0	0	0	-100	0	0	-100
Israel, incl. Gaza & W. Bank	287	346	--	27	1	20	--	-22
Saudi Arabia	538	549	400	39	7	2	-20	-5
South Asia	375	536	--	57	-48	43	--	54
Bangladesh	67	123	--	2	-44	83	--	-81
India	94	117	--	26	-19	24	--	318
Pakistan	144	226	100	1	-63	57	-50	-89
China	668	691	400	31	-27	3	-43	-64
Japan	7,736	8,383	8,100	724	-5	8	-4	1
Southeast Asia	1,238	1,470	--	174	5	19	--	21
Indonesia	279	353	--	49	1	27	--	12
Philippines	373	443	500	71	6	19	25	99
Other East Asia	4,646	4,934	4,900	465	-11	6	0	10
Taiwan	1,739	1,916	1,900	211	-4	10	0	45
Korea, Rep.	2,159	2,200	2,100	178	-20	2	-5	-13
Hong Kong	745	817	900	74	9	10	13	2
AFRICA	1,682	2,304	2,500	208	-6	22	9	4
North Africa	1,386	1,412	1,600	140	-9	2	14	13
Morocco	129	156	--	42	-21	21	--	584
Algeria	477	478	500	48	-3	0	0	62
Egypt	692	709	700	44	-9	2	0	-33
Sub-Saharan	496	892	900	69	2	80	0	-10
Nigeria	44	31	--	18	38	-30	--	461
Rep. S. Africa	74	328	--	13	-9	345	--	-55
LATIN AMERICA & CARIBBEAN	5,499	6,438	6,700	632	7	17	5	2
Brazil	271	143	200	11	158	-47	100	80
Caribbean Islands	1,010	970	--	96	0	-4	--	15
Central America	498	587	--	52	8	18	--	19
Colombia	124	142	--	20	-16	14	--	12
Mexico	2,885	3,676	4,000	349	8	27	8	-13
Peru	150	179	--	14	-20	19	--	-20
Venezuela	307	394	400	64	-11	28	0	188
CANADA	4,409	4,812	5,000	464	19	9	4	10
OCEANIA	349	428	400	36	10	23	0	23
TOTAL	37,609	42,417	42,500	3,870	-6	13	0	3
Developed countries	20,106	21,969	22,200	1,990	2	9	1	2
Developing countries	16,631	19,758	--	1,845	-14	17	--	9
Other countries	672	691	--	34	-26	3	--	-60

*Fiscal years begin Oct. 1 & end Sept. 30. Fiscal year 1992 began Oct. 1, 1991 & ended Sept. 30, 1992. F = forecast. — = not available.
 Note: Adjusted for transshipments through Canada.

Information contact: Stephen MacDonald (202) 219-0822.

Farm Income

Table 29.—Farm Income Statistics

	Calendar year										
	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992 F	1993 F
	\$ billion										
1. Farm receipts	141.9	147.7	150.1	140.0	148.5	158.2	169.2	177.1	174.8	176	174 to 184
Crops (incl. net CCC loans)	67.2	69.9	74.3	63.7	65.9	71.7	76.9	80.0	80.5	83	81 to 85
Livestock	69.6	72.9	69.8	71.6	76.0	79.4	84.1	89.9	86.7	88	86 to 90
Farm related 1/	5.1	4.9	6.0	6.7	6.6	7.1	8.2	7.2	7.6	7	6 to 8
2. Direct Government payments	9.3	8.4	7.7	11.8	16.7	14.5	10.9	9.3	8.2	9	8 to 12
Cash payments	4.1	4.0	7.6	8.1	6.6	7.1	9.1	8.4	8.2	9	8 to 12
Value of P&K commodities	5.2	4.6	0.1	3.7	10.1	7.4	1.7	0.9	0.0	0	0 to 1
3. Gross cash income (1+2) 2/	151.1	156.1	157.9	152.8	165.1	171.7	180.2	186.4	183.2	186	185 to 193
4. Nonmoney income 3/	13.8	8.9	5.6	5.6	5.6	6.1	8.2	6.1	5.9	6	6 to 7
5. Value of inventory change	-10.8	9.0	-2.3	-2.2	-2.3	-3.4	4.8	3.5	0.4	4	-3 to 1
6. Total gross farm income (3+4+5)	153.9	165.0	161.2	156.1	168.5	175.4	191.1	196.0	189.5	195	190 to 198
7. Cash expenses 4/	112.8	116.7	110.7	105.0	109.4	114.6	121.2	125.2	125.2	126	123 to 131
8. Total expenses	139.6	141.9	132.4	125.1	128.6	134.3	141.2	145.1	144.9	144	142 to 151
9. Net cash income (3-7)	38.4	37.4	47.1	47.8	55.8	58.1	58.9	61.3	58.0	60	57 to 67
10. Net farm income (6-8)	14.2	26.1	26.8	31.0	39.7	41.1	49.9	51.0	44.6	50	44 to 51
Deflated (1987\$)	16.3	28.7	30.5	32.0	39.7	39.5	48.0	45.1	37.9	42	35 to 41

1/ Income from machine hire, custom work, sales of forest products, & other miscellaneous cash sources. 2/ Numbers in parentheses indicate the combination of items required to calculate a given item. 3/ Value of home consumption of self-produced food & imputed gross rental value of farm dwellings. 4/ Excludes capital consumption, perquisites to hired labor, & farm household expenses. Total may not add because of rounding. F = forecast.

Information contact: Robert McElroy (202) 219-0800.

Table 30.—Average Income to Farm Operator Households

	Calendar year					
	1988	1989	1990	1991	1992 F	1993 F
	\$ per operator household					
Farm income to household 1/	4,201	5,798	5,742	3,994	—	—
Self-employment farm income	3,838	4,723	4,973	2,716	—	—
Other farm income to household	364	1,073	768	1,278	—	—
Plus: Total off-farm income	28,829	26,223	33,265	32,549	—	—
Income from wages, salaries, and non-farm businesses	22,220	19,457	24,778	24,404	—	—
Income from interest, dividends, transfer payments, etc.	6,610	6,766	8,487	8,144	—	—
Equals: Farm operator household income	33,030	32,019	39,007	36,542	—	—

1/ Farm income to the household equals self-employment income plus amounts that operators pay themselves & family members to work on the farm, income from renting out acreage, & net income from a farm business other than the one being surveyed. Data for 1988-90 are based on surveys that did not fully account for small farms. Data for 1991 include an additional 350,000 farms, many with gross sales under \$10,000 & negative net farm incomes. F = forecasts, not available at this time.

Information contact: Janet Perry (202) 219-0807.

Table 31.—Balance Sheet of the U.S. Farming Sector

	Calendar year 1/											
	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992F	1993 F	
	\$ billion											
Assets												
Real estate	753.4	861.8	586.2	542.3	578.9	595.5	615.5	627.5	623.4	623	620	to 630
Non-real estate	189.8	195.2	186.5	182.1	193.7	205.4	213.4	219.0	218.5	223	218	to 228
Livestock & poultry	49.5	49.5	46.3	47.8	58.0	62.2	66.2	70.9	68.4	72	71	to 75
Machinery & motor vehicles	85.8	85.0	82.9	81.5	60.0	81.0	84.5	84.3	83.7	83	81	to 85
Crops stored 2/	23.6	26.1	22.9	16.3	17.5	23.3	23.4	22.6	23.6	23	21	to 25
Purchased inputs	—	2.0	1.2	2.1	3.2	3.5	2.6	2.8	2.5	3	2	to 4
Financial assets	30.9	32.6	33.3	34.5	35.1	35.4	36.8	38.3	40.3	42	41	to 45
Total farm assets	943.2	857.0	772.7	724.4	772.6	800.9	828.9	846.5	842.4	846	845	to 855
Liabilities												
Real estate debt 3/	103.2	106.7	100.1	90.4	82.4	77.6	75.4	73.7	74.4	75	73	to 77
Non-real estate debt 4/	87.9	87.1	77.5	66.6	62.0	61.7	61.8	63.1	64.3	65	64	to 68
Total farm debt	191.1	193.8	177.6	157.0	144.4	139.4	137.2	136.8	138.8	140	138	to 144
Total farm equity	752.2	663.3	595.1	567.5	628.2	661.6	691.8	709.8	703.1	707	705	to 715
	Percent											
Selected ratios												
Debt-to-assets	20.3	22.6	23.0	21.7	18.7	17.4	16.6	16.2	16.5	17	16	to 17
Debt-to-equity	25.5	29.2	29.8	27.7	23.0	21.1	19.8	19.3	19.7	20	19	to 21
Debt-to-net cash income	498	518	377	328	259	240	233	223	2,395	2,300	2,200	to 2,400

1/ As of Dec. 31. 2/ Non-CCC crops held on farms plus value above loan rates for crops held under CCC. 3/ Excludes debt on operator dwellings, but includes CCC storage and drying facilities loans. 4/ Excludes debt for nonfarm purposes. F = forecast.

Information contacts: Ken Erickson or Jim Ryan (202) 219-0798.

Table 32.—Cash Receipts From Farm Marketings, by State

Region & State	Livestock & products				Crops 1/				Total 1/			
	1991	1992	Feb 1993	Mar 1993	1991	1992	Feb 1993	Mar 1993	1991	1992	Feb 1993	Mar 1993
	\$ million 2/											
NORTH ATLANTIC												
Maine	252	244	24	26	192	195	19	22	445	439	43	48
New Hampshire	63	63	6	6	80	76	8	7	143	139	11	13
Vermont	368	400	26	30	66	66	3	7	433	466	29	37
Massachusetts	121	121	10	11	355	342	12	17	476	463	23	28
Rhode Island	13	13	1	1	58	58	3	5	71	71	4	6
Connecticut	209	201	21	22	255	240	13	19	463	441	34	41
New York	1,782	1,885	130	148	1,087	1,077	56	73	2,868	2,963	186	221
New Jersey	197	196	15	17	464	476	17	25	660	673	32	41
Pennsylvania	2,470	2,549	191	213	1,033	1,050	88	94	3,503	3,599	279	308
NORTH CENTRAL												
Ohio	1,681	1,608	122	129	2,212	2,310	165	171	3,893	3,917	287	299
Indiana	1,893	1,731	136	155	2,582	2,696	210	167	4,475	4,428	346	322
Illinois	2,344	2,221	166	187	5,165	5,524	470	406	7,509	7,745	636	594
Michigan	1,288	1,291	91	109	1,793	1,947	126	125	3,081	3,239	217	234
Wisconsin	4,215	4,434	300	354	1,234	1,226	63	64	5,449	5,660	363	418
Minnesota	3,677	3,519	279	303	3,359	3,464	214	237	6,936	6,983	493	540
Iowa	5,721	5,350	565	507	4,458	4,843	317	384	10,179	10,192	882	891
Missouri	2,203	2,109	182	191	1,658	1,959	118	128	3,861	4,068	300	319
North Dakota	699	685	76	70	1,857	2,368	143	154	2,556	3,053	219	224
South Dakota	2,176	2,068	186	188	1,088	1,243	77	71	3,264	3,312	262	259
Nebraska	5,934	5,786	532	397	2,888	3,085	245	252	8,821	8,872	777	648
Kansas	4,802	4,954	366	388	2,133	2,424	118	124	6,935	7,379	484	510
SOUTHERN												
Delaware	438	453	38	43	161	175	9	8	620	628	45	51
Maryland	779	831	62	70	554	573	27	48	1,332	1,404	89	118
Virginia	1,363	1,433	97	118	732	728	31	32	2,095	2,161	128	148
West Virginia	253	252	16	21	77	79	5	4	330	331	21	24
North Carolina	2,608	2,635	215	259	2,316	2,318	64	82	4,924	4,954	279	340
South Carolina	549	519	38	44	677	627	22	25	1,225	1,147	60	69
Georgia	2,153	2,122	183	217	1,825	1,795	55	66	3,978	3,916	238	283
Florida	1,172	1,139	90	101	4,969	4,678	484	460	6,141	5,816	574	581
Kentucky	1,704	1,652	103	112	1,476	1,619	105	65	3,179	3,271	208	177
Tennessee	1,045	1,028	103	91	933	1,062	45	46	1,978	2,090	148	138
Alabama	2,219	2,111	176	208	759	790	35	42	2,978	2,901	211	250
Mississippi	1,275	1,318	113	130	1,147	1,265	59	61	2,422	2,583	171	190
Arkansas	2,680	2,621	221	240	1,631	1,945	73	54	4,311	4,565	294	294
Louisiana	621	620	42	48	1,172	1,291	59	31	1,793	1,911	101	79
Oklahoma	2,767	2,668	250	271	1,040	1,144	45	38	3,808	3,812	295	309
Texas	7,914	7,870	573	673	4,212	4,159	193	200	12,126	12,028	766	873
WESTERN												
Montana	790	766	73	70	741	830	62	79	1,531	1,596	134	149
Idaho	1,073	1,109	95	106	1,543	1,620	81	112	2,616	2,730	176	218
Wyoming	643	620	60	45	170	167	9	5	813	787	69	51
Colorado	2,564	2,694	241	293	1,097	1,086	63	64	3,761	3,779	304	358
New Mexico	1,019	968	89	93	482	469	18	22	1,501	1,437	107	115
Arizona	786	823	90	93	1,104	940	46	134	1,890	1,764	136	227
Utah	553	583	41	43	178	192	11	15	731	775	51	59
Nevada	187	187	16	17	69	74	7	9	276	260	25	26
Washington	1,290	1,364	101	132	2,557	2,932	185	172	3,847	4,296	266	304
Oregon	824	826	58	60	1,631	1,697	77	92	2,454	2,524	135	152
California	5,272	5,258	381	420	12,615	12,838	632	805	17,887	18,095	1,013	1,226
Alaska	6	6	0	1	20	20	1	1	27	27	2	2
Hawaii	91	91	7	7	506	495	36	40	597	586	43	48
UNITED STATES	86,746	85,996	6,996	7,473	80,550	84,280	5,019	5,368	167,292	170,276	12,017	12,841

1/ Sales of farm products include receipts from commodities placed under nonrecourse CCC loans, plus additional gains realized on redemptions during the period. 2/ Estimates as of end of current month. Totals may not add because of rounding.

Information contact: Roger Strickland (202) 219-0806. To receive current monthly cash receipts via mail or E-Mail contact Linda Farmer at (202) 219-0804.

Table 33.—Cash Receipts From Farming

	Annual						1992			1993		
	1987	1988	1989	1990	1991	1992 P	Mar	Nov	Dec	Jan	Feb	Mar
	\$ million											
Farm marketings & CCC loans ^a	141,844	151,102	161,027	169,920	167,292	170,275	12,522	17,150	17,167	15,320	12,017	12,841
Livestock & products	75,993	79,438	84,148	89,921	86,745	85,996	7,094	7,721	7,984	6,564	8,998	7,473
Meat animals	44,478	46,492	48,857	51,911	51,093	48,988	4,201	4,431	4,808	3,588	4,226	4,326
Dairy products	17,727	17,641	19,396	20,210	18,114	19,709	1,581	1,591	1,631	1,539	1,367	1,561
Poultry & eggs	11,515	12,868	15,372	15,243	15,063	14,801	1,133	1,389	1,379	1,225	1,225	1,391
Other	2,274	2,437	2,524	2,557	2,476	2,497	179	311	168	212	179	185
Crops	65,851	71,663	76,879	79,999	80,547	84,280	5,428	9,429	9,184	8,756	5,019	6,368
Food grains	5,790	7,474	8,247	7,512	6,823	8,948	370	733	648	735	409	348
Feed crops	14,635	14,298	17,054	18,890	19,012	20,352	1,355	1,961	2,532	3,015	1,482	1,406
Cotton (lint & seed)	4,189	4,546	5,033	5,489	5,589	5,404	106	1,372	1,289	693	281	179
Tobacco	1,816	2,083	2,415	2,741	2,886	2,997	11	243	653	496	40	35
Oil-bearing crops	11,293	13,500	11,866	12,294	12,547	13,065	802	1,430	1,122	1,664	850	887
Vegetables & melons	9,898	9,788	11,534	11,455	11,293	11,235	1,168	610	561	825	674	1,004
Fruits & tree nuts	8,065	9,202	9,296	9,534	9,882	9,885	530	1,352	1,013	483	460	380
Other	10,176	10,772	11,435	12,284	12,514	12,428	1,085	1,728	1,365	835	281	1,149
Government payments	16,747	14,480	10,887	9,298	8,214	9,169	1,581	303	1,164	224	1,054	3,936
Total	158,591	165,582	171,914	179,218	175,508	179,338	14,103	17,453	18,331	15,544	13,071	16,777

^a Sales of farm products include receipts from commodities placed under nonrecourse CCC loans, plus additional gains realized on redemptions during the period. P = preliminary.

Information contact: Roger Strickland (202) 219-0806. To receive current monthly cash receipts via mail or E-Mail contact Linda Farmer at (202) 219-0804.

Table 34.—Farm Production Expenses

	Calendar year									
	1984	1985	1986	1987	1988	1989	1990	1991	1992F	1993F
	\$ million									
Feed purchased	19,383	16,949	17,472	17,463	20,393	21,002	20,706	19,800	20,000	18,000 to 22,000
Livestock & poultry purchased	9,487	9,184	9,758	11,842	12,764	13,138	14,832	14,358	14,000	12,000 to 16,000
Seed purchased	3,386	3,128	3,188	3,259	3,359	3,558	3,576	3,975	4,000	3,000 to 5,000
Farm-origin inputs	32,256	29,261	30,418	32,564	36,515	37,698	39,114	38,133	38,000	36,000 to 40,000
Fertilizer & lime	8,361	7,513	8,820	6,453	6,947	7,249	7,135	7,419	7,000	6,000 to 9,000
Fuels & oils	7,296	6,436	5,310	4,957	4,903	4,798	5,730	5,472	5,000	4,000 to 7,000
Electricity	2,060	1,876	1,795	2,156	2,289	2,543	2,480	2,483	2,000	1,000 to 3,000
Pesticides	4,688	4,334	4,324	4,512	4,577	5,437	5,730	6,313	7,000	6,000 to 8,000
Manufactured inputs	22,404	20,160	18,249	18,077	18,716	20,027	21,063	21,687	21,000	20,000 to 24,000
Short-term interest	10,396	8,735	7,367	6,767	6,797	6,910	6,911	6,615	6,000	5,000 to 8,000
Real estate interest 1/	10,733	9,878	9,131	8,187	7,885	7,781	7,607	7,319	7,000	6,000 to 8,000
Total interest charges	21,129	18,613	16,498	14,954	14,682	14,691	14,518	13,934	14,000	12,000 to 16,000
Repair & maintenance 1/	6,416	6,370	6,428	6,760	6,858	7,340	7,347	7,234	8,000	7,000 to 9,000
Contract & hired labor	9,427	10,008	9,464	9,975	10,441	11,110	12,541	12,595	13,000	10,000 to 14,000
Machine hire & custom work	2,566	2,354	2,099	2,105	2,354	2,682	2,633	2,722	3,000	2,000 to 4,000
Marketing, storage, & transportation	4,012	4,127	3,652	4,079	3,450	4,060	4,046	4,532	5,000	4,000 to 6,000
Misc. operating expenses 1/ 2/	10,331	10,010	9,759	11,171	11,791	12,522	12,364	13,256	13,000	10,000 to 14,000
Other operating expenses	32,751	32,888	31,420	34,089	34,894	37,734	38,931	40,339	41,000	39,000 to 44,000
Capital consumption 1/	20,847	19,299	17,788	17,092	17,344	17,780	17,494	17,352	17,000	16,000 to 20,000
Taxes 1/	4,337	4,542	4,612	4,653	4,848	5,127	5,623	5,980	6,000	5,000 to 7,000
Net rent to nonoperator landlord	8,150	7,690	6,099	7,124	7,290	8,187	8,334	7,464	8,000	7,000 to 9,000
Other overhead expenses	33,334	31,531	28,499	29,069	29,482	31,094	31,451	30,796	31,000	30,000 to 33,000
Total production expenses	141,873	132,433	125,084	128,772	134,285	141,244	145,077	144,889	145,000	140,000 to 148,000

1/ Includes operator dwellings. 2/ Beginning in 1982, miscellaneous operating expenses include other livestock purchases, dairy assessments & feeding fees paid by nonoperators. Totals may not add because of rounding. F = forecast.

Information contacts: Chris McGath (202) 219-0804, Robert McElroy (202) 219-0800.

Table 35.—CCC Net Outlays by Commodity & Function

COMMODITY/PROGRAM	Fiscal year									
	1985	1986	1987	1988	1989	1990	1991	1992	1993 E	1994 E
	\$ million									
Feed grains										
Corn	4,403	10,524	12,346	8,227	2,863	2,450	2,387	2,105	5,250	3,180
Grain sorghum	463	1,185	1,203	764	467	361	243	190	423	274
Barley	336	471	394	57	45	-93	71	174	185	103
Oats	2	26	17	-2	1	-5	12	32	17	6
Corn & oat products	7	5	7	7	8	8	9	9	8	10
Total feed grains	5,211	12,211	13,967	9,053	3,384	2,721	2,722	2,510	5,883	3,573
Wheat	4,691	3,440	2,836	678	53	806	2,958	1,719	2,274	1,847
Rice	990	847	906	128	631	667	867	715	889	741
Upland cotton	1,553	2,142	1,786	666	1,461	-79	382	1,443	2,436	2,317
Tobacco	455	253	-346	-453	-367	-307	-143	29	-2	-13
Dairy	2,085	2,337	1,166	1,295	679	505	639	232	125	230
Soybeans	711	1,597	-476	-1,676	-86	5	40	-29	41	-40
Peanuts	12	32	8	7	13	1	48	41	33	1
Sugar	184	214	-85	-246	-25	15	-20	-19	-28	-30
Honey	81	89	73	100	42	47	19	17	17	12
Wool	109	123	152	1/ 5	93	104	172	191	183	191
Operating expense 3/	346	457	535	614	620	616	625	6	7	6
Interest expenditure	1,435	1,411	1,219	425	96	632	745	532	195	164
Export programs 4/	134	102	276	200	-102	-34	733	1,455	3,066	1,845
1989/92 Disaster/Tree/										
livestock assistance	0	0	0	0	3,919	2/ 161	121	1,054	1,226	0
Other	-314	486	371	1,665	110	609	2	-158	789	1,293
Total	17,683	25,841	22,408	12,461	10,523	6,471	10,110	9,738	17,134	12,137
FUNCTION										
Price-support loans (net)	6,272	13,628	12,199	4,579	-926	-399	416	584	2,163	785
Direct payments 5/										
Deficiency	6,302	6,166	4,833	3,971	5,798	4,178	6,224	5,491	6,813	7,009
Diversion	1,525	64	382	8	-1	0	0	0	0	0
Dairy termination	0	489	587	260	168	189	96	2	0	0
Loan Deficiency	0	27	80	0	42	3	21	214	390	438
Other	0	0	0	0	0	0	0	140	200	175
Disaster	0	0	0	6	4	0	0	0	0	0
Total direct payments	7,827	6,746	5,862	4,245	6,011	4,370	6,341	5,647	9,403	7,622
1988-92 crop disaster	0	0	0	0	3,386	2/ 5	6	960	1,137	0
Emergency livestock/tree/										
forage assistance	0	0	0	31	533	156	115	94	89	0
Purchases (net)	1,331	1,670	-479	-1,131	116	-48	646	321	335	296
Producer storage										
payments	329	485	832	658	174	185	1	14	19	67
Processing, storage,										
& transportation	657	1,013	1,659	1,113	659	317	394	185	135	128
Operating expense 3/	346	457	535	614	620	618	625	6	7	6
Interest expenditure	1,435	1,411	1,219	425	98	632	745	532	195	164
Export programs 4/	134	102	276	200	-102	-34	733	1,455	3,066	1,845
Other	-648	329	305	1,727	-46	669	86	-260	665	1,222
Total	17,683	25,841	22,408	12,461	10,523	6,471	10,110	9,738	17,134	12,137

1/ Fiscal 1988 wool & mohair program outlays were \$130,635,000 but include a one-time advance appropriation of \$126,108,000, which was recorded as a wool program receipt by Treasury. 2/ Approximately \$1.5 billion in benefits to farmers under the Disaster Assistance Act of 1989 were paid in generic certificates & were not recorded directly as disaster assistance outlays. 3/ Does not include CCC Transfers to General Sales Manager. 4/ Includes Export Guarantee Program, Direct Export Credit Program, CCC Transfers to the General Sales Manager, Market Promotion Program, starting in fiscal 1991 & starting in fiscal 1992 the Export Guarantee Program - Credit Reform, Export Enhancement Program, & Dairy Export Incentive Program. 5/ Includes cash payments only. Excludes payment-in-kind in fiscal 83-85 & generic certificates in fiscal 66-93. E = Estimated in the fiscal 1994 Budget which was released April 8, 1993 based on November 1992 supply & demand estimates. Minus (-) indicates a net receipt (excess of repayments or other receipts over gross outlays of funds).

Information contact: Richard Pazdalski (202) 720-5148.

Food Expenditures

Table 36.—Food Expenditures

	Annual			1993			1993 year-to-date		
	1990	1991	1992	Mar	Apr P	May P	Mar	Apr P	May P
\$ billion									
Sales 1/									
Off-premise use 2/	298.1	310.9	319.0	26.4	26.8	27.8	77.0	103.8	131.6
Meals & snacks 3/	225.3	232.6	242.1	20.8	21.0	21.8	58.2	79.2	100.8
1992 \$ billion									
Sales 1/									
Off-premise use 2/	308.3	313.2	318.9	25.6	26.2	27.0	75.4	101.6	128.6
Meals & snacks 3/	237.8	237.3	242.0	20.4	20.7	21.3	57.5	78.2	99.5
Percent change from year earlier (\$ bil.) ^{1/}									
Sales 1/									
Off-premise use 2/	8.9	4.3	2.8	3.3	2.9	1.7	1.7	2.0	1.9
Meals & snacks 3/	7.2	3.3	4.1	2.5	6.7	2.7	1.1	2.5	2.5
Percent change from year earlier (1992 \$ bil.)									
Sales 1/									
Off-premise use 2/	2.3	1.6	1.8	0.5	1.0	-1.6	-0.4	-0.1	-0.4
Meals & snacks 3/	2.4	-0.1	2.0	0.8	4.8	1.0	-0.7	0.7	0.8

1/ Food only (excludes alcoholic beverages). Not seasonally adjusted. 2/ Excludes donations & home production. 3/ Excludes donations, child nutrition subsidies, & meals furnished to employees, patients, & inmates. P = preliminary.

NOTE: This table differs from Personal Consumption Expenditures (PCE), table 2, for several reasons: (1) this series includes only food nonalcoholic beverages & pet food which are included in PCE; (2) this series is not seasonally adjusted, whereas PCE is seasonally adjusted at annual rates; (3) this series reports sales only, but PCE includes food produced & consumed on farms & food furnished to employees; (4) this series includes all sales of meals & snacks. PCE includes only purchases using personal funds, excluding business travel & entertainment. For a more complete discussion of the differences, see "Developing an Integrated Information System for the Food Sector," Agr. Econ. Rpt. No. 575, Aug 1987.

Information contact: Alden Manchester (202) 219-0880.

Transportation

Table 37.—Rail Rates; Grain & Fruit-Vegetable Shipments

	Annual			1992			1993			
	1990	1991	1992	Apr	Nov	Dec	Jan	Feb	Mar	Apr
Rail freight rate index 1/ (Dec. 1984=100)										
All products	107.5	109.3	109.9	110.0	110.1	110.3	110.4	110.4 P	110.6 P	110.6 P
Farm products	110.4	111.4	111.1	110.3	112.4	113.4	113.4	113.0 P	113.5 P	113.5 P
Grain	110.1	111.2	111.4	110.2	113.1	114.4	114.4	113.9 P	114.5 P	114.5 P
Food products	105.4	108.1	108.7	109.4	108.1	108.7	108.7	108.7 P	108.9 P	108.8 P
Grain shipments										
Rail carloadings (1,000 cars) 2/	27.6	28.6	27.3	25.0	31.5 P	29.7 P	29.6 P	30.7 P	30.1 P	28.0 P
Barge shipments (mil. ton) 3/	3.8	3.3	3.4	3.8	3.3	2.9	2.0	1.7	3.0	2.5
Fresh fruit & vegetable shipments 4/ 5/										
Piggy back (mil. cwt)	1.8	1.5	1.6	1.8	1.4	1.4	1.4	1.4	1.6	1.4
Rail (mil. cwt)	2.3	2.1	2.6	2.8	2.4	3.0	2.5	2.2	2.8	2.0
Truck (mil. cwt)	41.5	41.9	44.0	50.8	39.4	41.1	40.8	39.1	44.0	48.2
Cost of operating trucks hauling produce 4/										
Fleet operation (cts./mile)	130.5	126.5	124.1	123.3	124.8	125.1	127.0	127.0	127.0	127.0

1/ Department of Labor, Bureau of Labor Statistics. 2/ Weekly average; from Association of American Railroads. 3/ Shipments on Illinois & Mississippi waterways, U.S. Corps of Engineers. 4/ Agricultural Marketing Service, USDA. 5/ Preliminary data for 1993. P = preliminary. — = not available.

Information contact: T.Q. Hutchinson (202) 219-0840.

Indicators of Farm Productivity

Table 38.—Indexes of Farm Production, Input Use & Productivity 1/

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991 2/
	1977=100									
Farm output	116	96	112	118	111	110	102	114	119	120
All livestock products 3/	107	109	107	110	110	113	116	118	118	119
Meat animals	101	104	101	102	100	102	105	105	104	104
Dairy products	110	114	110	117	116	116	118	117	120	121
Poultry & eggs	119	120	123	128	133	144	148	153	182	168
All crops 4/	117	88	111	118	109	108	92	107	114	111
Feed grains	122	87	118	134	123	106	73	108	112	108
Hay & forage	109	100	107	106	106	102	89	101	102	103
Food grains	138	117	129	121	107	107	98	107	136	104
Sugar crops	98	93	95	97	106	111	105	105	107	112
Cotton	85	55	91	94	89	103	107	86	109	122
Tobacco	104	75	90	81	63	82	72	71	84	87
Oil crops	121	91	106	117	110	108	89	106	107	114
Cropland used for crops	101	88	99	98	94	88	87	90	90	89
Crop production per acre	116	100	112	120	116	123	106	119	127	125
Farm input 5/	98	90	95	91	89	89	87	87	88	—
Farm real estate	102	101	99	97	96	95	94	93	93	—
Mechanical power & machinery	89	88	85	80	77	74	74	73	71	—
Agricultural chemicals	118	102	120	116	109	111	112	119	122	—
Feed, seed, & livestock purchases	107	103	103	102	109	116	111	113	113	—
Farm output per unit of input	119	100	118	129	124	124	116	130	135	—
Output per hour of labor										
Farm 6/	125	99	121	139	139	142	135	147	142	—
Nonfarm 7/	99	102	105	106	108	109	111	112	111	—

1/ For historical data & indexes, see Economic Indicators of the Farm Sector: Production & Efficiency Statistics, 1988, ECIFS 5-8. 2/ Preliminary indexes for 1991 based on Crop Production: 1991 Summary, released in January 1992, & unpublished data from the Agricultural Statistics Board, NASS. 3/ Gross livestock production includes minor livestock products not included in the separate groups shown. It cannot be added to gross crop production to compute farm output. 4/ Gross crop production includes some miscellaneous crops not in the separate groups shown. It cannot be added to gross livestock production to compute farm output. 5/ Includes other items not included in the separate groups shown. 6/ Economic Research Service. 7/ Bureau of Labor Statistics. — = not available.

Information contact: Eldon Ball (202) 219-0432.

Food Supply & Use

Table 39.—Per Capita Consumption of Major Food Commodities ^{1/}

Commodity	1985	1986	1987	1988	1989	1990	1991	1992 P
Pounds								
Red meats 2/3/4/	124.9	122.2	117.4	119.5	115.9	112.4	111.9	114.1
Beef	74.6	74.4	69.6	68.6	65.4	64.0	63.1	62.8
Veal	1.5	1.6	1.3	1.1	1.0	0.9	0.8	0.8
Lamb & mutton	1.1	1.0	1.0	1.0	1.1	1.1	1.1	1.0
Pork	47.7	45.2	45.6	48.8	48.4	46.4	46.9	49.5
Poultry 2/3/4/	45.2	47.1	50.7	51.7	53.8	55.9	58.0	60.0
Chicken	36.1	37.0	39.1	39.3	40.5	42.1	43.9	45.9
Turkey	9.1	10.2	11.6	12.4	13.1	13.8	14.1	14.2
Fish & shellfish 3/	15.0	15.4	16.1	15.1	15.6	15.0	14.8	—
Eggs 4/	32.7	32.5	32.5	31.5	30.2	29.9	29.8	30.0
Dairy products								
Cheese (excluding cottage) 2/5/	22.5	23.1	24.1	23.7	23.8	24.7	24.9	26.0
American	12.2	12.1	12.4	11.5	11.0	11.2	11.1	11.3
Italian	8.5	7.0	7.8	8.1	8.5	9.0	9.4	—
Other cheese 6/	3.9	4.0	4.1	4.1	4.3	4.6	4.6	—
Cottage cheese	4.1	4.1	3.9	3.9	3.6	3.4	3.3	—
Beverage milks 2/	229.7	228.6	226.5	222.4	224.3	221.7	221.5	—
Fluid whole milk 7/	123.4	116.5	111.9	105.7	97.6	90.4	87.5	—
Fluid lowfat milk 8/	93.7	98.6	100.6	100.5	106.5	108.4	110.1	—
Fluid skim milk	12.6	13.5	14.0	16.1	20.2	22.9	23.8	—
Fluid cream products 9/	8.7	7.0	7.1	7.1	7.3	7.1	7.0	—
Yogurt (excluding frozen)	4.1	4.4	4.4	4.7	4.3	4.1	4.3	—
Ice cream	18.1	18.4	18.4	17.3	18.1	15.8	16.4	—
Ice milk	6.9	7.2	7.4	8.0	8.4	7.7	7.3	—
Frozen yogurt	—	—	—	—	2.0	2.8	3.5	—
All dairy products, milk								
equivalent, milkfat basis 10/	593.8	591.5	601.3	582.9	565.2	571.3	565.3	563.8
Fats & oils — Total fat content	64.3	64.4	62.9	63.0	60.4	62.2	63.5	—
Butter & margarine (product weight)	15.7	16.0	15.2	14.8	14.6	15.3	14.8	—
Shortening	22.9	22.1	21.4	21.5	21.5	22.2	22.1	—
Lard & edible tallow (direct use)	3.7	3.5	2.7	2.6	2.1	2.5	3.1	4.1
Salad & cooking oils	23.5	24.2	25.4	25.8	24.0	24.2	25.2	—
Fresh fruits 11/	86.8	93.1	97.5	97.4	98.8	92.6	90.6	—
Canned fruit 12/	12.7	12.9	13.6	13.2	13.4	13.4	12.3	—
Dried fruit	2.9	2.8	3.1	3.3	3.2	3.6	3.2	—
Frozen fruit	3.3	3.6	3.9	3.8	4.6	4.3	3.9	—
Frozen citrus juices 13/	40.5	43.2	40.2	40.1	34.3	27.2	—	—
Vegetables 11/								
Fresh	100.7	99.3	105.8	109.7	112.9	110.9	106.0	108.1
Canning	87.8	87.9	87.6	83.5	90.7	93.4	94.3	93.9
Freezing	17.1	15.8	16.6	18.3	17.8	18.3	19.3	17.5
Potatoes, all 11/	122.5	125.8	125.8	122.3	127.4	127.8	130.6	132.6
Sweet potatoes 11/	5.4	4.4	4.4	4.1	4.1	4.6	4.0	4.2
Peanuts (shelled)	6.3	6.4	6.4	6.9	7.0	6.0	6.5	—
Tree nuts (shelled)	2.3	2.3	2.2	2.3	2.3	2.5	2.5	—
Flour & cereal products 14/	156.1	162.1	170.8	173.7	175.5	183.5	185.4	187.0
Wheat flour	124.7	125.7	130.0	130.0	129.6	135.8	136.5	138.3
Rice (milled basis)	9.0	11.6	14.0	14.3	15.2	16.2	16.8	16.8
Caloric sweeteners 15/	131.3	129.6	133.7	135.1	137.3	140.7	141.7	143.3
Coffee (green bean equiv.)	10.5	10.5	10.2	9.8	10.1	10.3	10.5	10.6
Cocoa (chocolate liquor equiv.)	3.7	3.8	3.8	3.8	4.0	4.3	4.6	4.6

1/ In pounds, retail weight unless otherwise stated. Consumption normally represents total supply minus exports, nonfood use, & ending stocks. Calendar-year data except fresh citrus fruits, peanuts, tree nuts, & rice, which are on crop-year basis. 2/ Total may not add due to rounding. 3/ Boneless, trimmed weight. Chicken series revised to exclude amount of ready-to-cook chicken going to pet food as well as some water leakage that occurs when chicken is cut up before packaging. 4/ Excludes shipments to the U.S. territories. 5/ Natural equivalent of cheese & cheese & other dairy products. Includes miscellaneous cheese not shown separately. 6/ Includes Swiss, Brick, Munster, cream, Neuchâtel, Blue, Gorgonzola, Edam, & Gouda. 7/ Plain & flavored. 8/ Plain & flavored & buttermilk. 9/ Heavy cream, light cream, half & half, & sour cream & dip. 10/ Includes condensed & evaporated milk & dry milk products. 11/ Farm weight. 12/ Excludes pineapple, & berries. 13/ Single strength equivalent. 14/ Includes rye, corn, oat, & barley products. Excludes quantities used in alcoholic beverages, corn sweeteners, & fuel. 15/ Dry weight equivalent. — = not available. P = Preliminary.

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